The Chatham Airport Commercial Prospects Study

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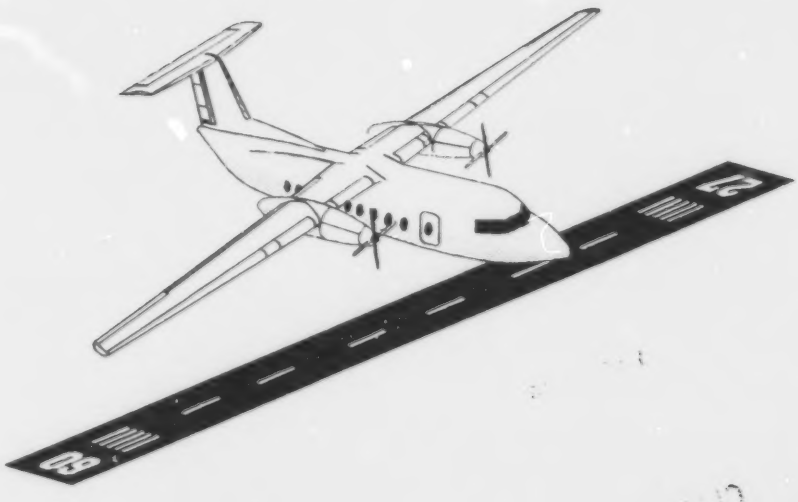

Prepared for: The Management Committee of the Canada/New Brunswick Cooperation Agreement on Planning

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Ottawa - 1992

Canada

New Nouveau Brunswick

COMMERCIAL PROSPECTS FOR THE CHATHAM AIRFIELD

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January 1992

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Table of Contents

Section			Page
Executive Summary			(i)
Sommaire			(vi)
I	Introduction		1
	A.	Background	1
	B.	Objectives	2
	C.	Approach	2
II	The Miramichi Airport		5
	A.	Facilities	5
	B.	Airport Management	11
	C.	Airline Traffic	14
	D.	Capabilities	15
III	The Miramichi Region		17
	A.	Demographics	17
	B.	Capacities	19
	C.	Capabilities	21
IV	Analysis of Commercial Prospects		23
	A.	Prospects	23
	B.	Analysis of Prospects	26
	C.	Recommended Opportunities	40
V	Scheduled Air Services		43
	A.	Description	43
	B.	Analysis	46
	C.	Strategy	50
	D.	Action Required	56
VI	Based Air Carriers		61
	A.	Description	61
	B.	Analysis	63
	C.	Strategy	66
	D.	Action Required	66

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Table of Contents (Continued)

Section			Page
VII	Airport Fire Fighter Training Centre		69
	A.	Description	69
	B.	Analysis	71
	C.	Strategy	72
	D.	Action Required	73
VIII	Aero Engine Repair and Overhaul		75
	A.	Description	75
	B.	Analysis	75
	C.	Strategy	78
	D.	Action Required	79
IX	Associated Actions		81
	A.	Land Use and Facility Planning	81
	B.	Business Planning	82
X	An Overall Commercial Development Strategy		85
XI	Conclusions and Recommendations		87

Appendices

A: List of Persons Interviewed
B: Memorandum of Agreement (DND License to Miramichi Airport Commission)
C: Agreement Between the Government of Canada (Department of Transport) and the Miramichi Airport Commission
D: Letters Patent Miramichi Airport Commission
E: Inventory of Buildings

EXECUTIVE SUMMARY

Introduction

The airport at Chatham was an important air defense base for many years. However, the retirement of the CF101 Voodoo interceptor resulted in a rationalization of air defence establishments and the airfield portion of the base became surplus to military needs.

The Miramichi Airport Commission (MAC), a joint body of the towns of Chatham and Newcastle, had operated the civil air terminal at CFB Chatham since 1971. When the entire airfield was declared surplus, an agreement was reached involving National Defence (DND), Transport Canada (TC), Atlantic Canada Opportunities Agency (ACOA), and the Province for the Commission to assume operation of the airside as well as the terminal.

The Miramichi region is not the first area in North America to experience the potential economic impact of reduced military activity. However, experience of the last 30 years has demonstrated many times that former military assets, especially airports, can be redeveloped for civil use, often with offsetting economic benefits for the community. This study has been undertaken to ensure Chatham and the Miramichi region derive the maximum possible benefit from their airport resource.

The objective of the study was:

> "To enhance the long term viability of the airfield at Chatham, New Brunswick; and contribute to local economic development in the region through the identification of potential users of surplus facilities at the Chatham airfield."

The Prospects

Commercial prospects were identified and assessed as having low, medium or high potential for the Chatham airfield. The medium potential prospects include opportunities to either supplement high potential opportunities, be developed by local resources or have potential in the longer term. Four commercial prospects were found to have high potential to produce significant economic benefits in the near term. These were:

- the enhancement of scheduled air services;
- attraction of specialty air carriers to establish permanent bases;
- development of an airport firefighting training centre; and
- establishment of an aircraft engine repair and overhaul facility.

A description of these four opportunities follows.

Scheduled Air Services

The airport had enplaned/deplaned traffic levels consistently above 20,000 during the 1980's. Since the withdrawal of Intair, traffic has declined. It is important to win this traffic back for its contribution to airport revenue. More important is the need for quality air service to facilitate commerce and attract new enterprise.

A detailed analysis of traffic supports service to Montreal. Access to Boston and Halifax is also important as almost 80% of traffic is continuing beyond connecting hubs.

Traffic can best be developed through a business-oriented partnership with the Miramichi Airport Commission working with Air Atlantic and the Airport Commission at Charlo as a co-terminal to combine the two airports' markets for northeast New Brunswick services. Two examples for improved service were developed, one with intra-provincial Dash 8 service connecting to the BAe 146 jet flights at Fredericton, the other with a Dash 8 aircraft dedicated to the Chatham/Charlo markets. Either could be a significant enhancement to the quality of service without being a major disruption to Air Atlantic's schedules.

The Miramichi Airport Commission will achieve this opportunity through aligning its interests with Charlo and seeking incremental schedule improvements from Air Atlantic. It will then be necessary to prove it can deliver the traffic through organizing the Miramichi travel industry, implementing a public awareness program, developing the ground transportation system and arranging supporting services. Through continuing market research and seeking out incremental traffic (e.g, freight, charters), Air Atlantic will be willing to further improve services. A reasonable target would be 25,000 passengers enplaned/deplaned by 1993/94.

Based Air Carriers

Chatham is well positioned to serve specialty markets throughout Atlantic Canada. Attracting specialty carriers to establish their base at Chatham will bring direct jobs to the community as well as expand the available services (e.g., aircraft maintenance) to attract more traffic to the airport. Already Norfolk Aerial Services moved its winter maintenance base to Chatham and Laurentide Aviation initiated a seasonal pilot training operation. In aerial application, Conair, Canada's premier carrier in the field, has expressed interest in forming an Atlantic company with its base at Chatham. Two other companies, well established elsewhere, are prospects for a professional flight training centre on the scale of the Moncton Flight Centre.

The strategy to win the Conair prospect is to build on the Miramichi's established position in the forestry industry to make it the "capital" of the industry for Atlantic Canada, including the aerial application component. Training operations will require classrooms, messing and accommodation. Through arrangements with DND and the Miramichi Community College (MCC), Chatham can be made the low cost/low risk, most attractive location for the next Atlantic Canada flight centre.

The Commission must ensure the airport offers these prospective companies a complete package of facilities and services to meet their needs at lowest cost. It can then coordinate with the Province and ACOA to ensure these ventures come about.

Firefighter Training Centre

There is a need to centralize airport firefighter training because of environmental effects and the high capital cost of fire training areas that can meet environmental requirements. There is also new technology under development for propane fired, computer controlled "high tech" firefighting simulators.

The MCC and Chatham Fire Department are already well advanced in providing most "hot drill" training in the province and specialized training in propane and industrial firefighting. They are proposing to

develop shipboard firefighting training which is not only a natural fit with airport needs but is the application for which the "high tech" simulator technology was originally developed.

The strategy is to combine the airport opportunity with the established regional niche in firefighter training. The principal tactic is to acquire the simulator technology to gain a competitive advantage over any other potential locale for an eastern Canada training centre. DND itself could be an important client of the centre. Not only does this opportunity contribute local jobs, but it brings a large number of trainees to the community, many travelling on the air service, and all making local expenditures on a wide range of services. It also opens additional airports trades training opportunities such as driver training and for security personnel.

Aerospace

The aero engine repair and overhaul opportunity was based on the existing engine test cell being a major saving for a new enterprise. Unfortunately, without instrumentation, its relative value is reduced. Also it was found there have recently been major increases in capacity including new facilities in Summerside and Lethbridge. Aero engine overhaul may have been a strong opportunity recently but is not currently. This is largely due to competitor over-capacity. However, various other prospects were also identified, including overhaul of non-aero turbine engines.

The challenge is how best to identify, track and follow-up aerospace opportunities that, while major opportunities (e.g., 500 jobs in one plant), can take years to bring to fruition.

The strategy is for the Miramichi Airport Commission to team with the Miramichi Region Development Corporation. MAC will scan the industry through industry associations, memberships, publications and by building networks of contacts. MRDC can administer an aero industrial park and work with MAC in selling MAC developed prospects.

Associated Actions

Now that the Commission has identified its market opportunities, it must continue work to complete land use and facility planning tailored to the needs of its target markets (i.e. development of its product). It also must prepare a Business Plan to detail its missions, marketing and financing plans. This Plan will demonstrate that the Miramichi Airport Commission is focussed in its objectives and the plan will also be key to obtaining project financing.

Overall Strategy

The overall commercial development strategy recognizes that MAC's mandate is broader than operating the airport and that it requires a business oriented approach. The strategy sees MAC working in partnerships or strategic alliances with others who share its goals.

Conclusion

Through the detailed actions itemized in the full report, guided by the strategies proposed, the Miramichi Regional Airport can become a viable business operation making a major economic contribution to the Miramichi region.

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SOMMAIRE

Introduction

L'aéroport de Chatham fut pendant de nombreuses années une importante base de défense aérienne. Cependant, le retrait du service des intercepteurs CF 101 Voodoo a amené une rationalisation des installations de défense aérienne et le terrain d'aviation de la base a perdu son utilité militaire.

La Miramichi Airport Commission (MAC), organisme de gestion concertée des villes de Chatham et Newcastle, exploite l'aérogare civile de la BFC Chatham depuis 1971. Lorsque l'ensemble du terrain d'aviation fut déclaré excédentaire, un accord fut conclu entre la Défense nationale (MDN), Transport Canada (TC), l'Agence de promotion économique du Canada atlantique (APECA) et la Province qui conférait à la MAC l'administration du côté piste en plus de celle de l'aérogare.

La région de Miramichi n'est pas la première en Amérique du Nord qui ait dû faire face à l'éventualité des conséquences économiques qu'entraînent la réduction des activités militaires. Cependant, l'expérience acquise au cours des 30 dernières années a fait la preuve en de nombreuses occasions que les anciennes propriétés militaires, en particulier les aéroports, peuvent être réaménagées à des fins civiles, avec, souvent, des avantages économiques compensatoires pour la collectivité. La présente étude a été entreprise pour s'assurer que Chatham et la région de Miramichi profitent au maximum de leurs ressources aéroportuaires.

L'étude avait pour objet de :

> Favoriser la rentabilité à long terme du terrain d'aviation de Chatham, Nouveau-Brunswick, et de participer au développement économique de la région en identifiant les utilisateurs éventuels des installations excédentaires du terrain d'aviation de Chatham.

Les perspectives

Les perspectives commerciales ont été identifiées et évaluées en fonction de leur potentiel de rentabilité élevé, moyen ou faible pour le terrain d'aviation de Chatham. Les perspectives du potentiel de rentabilité moyen comprennent des possibilités de complémentarité avec les entreprises à potentiel élevé, de développement par des ressources locales, ou d'acquisition d'un potentiel à plus long terme. On a trouvé quatre perspectives commerciales qui présentent un potentiel élevé de générer des avantages économiques considérables à court terme. Ce sont:

- l'amélioration des services aériens réguliers;
- l'attrait pour les transporteurs aériens spécialisés d'y établir des bases permanentes;
- la création d'un centre de formation de lutte contre l'incendie dans les aéroports; et
- l'installation d'un atelier de réparation et de remise en état des moteurs d'avions.

Voici la description de ces quatre perspectives.

Services aériens réguliers

L'aéroport a toujours maintenu un niveau de trafic passagers supérieur à 20 000 au cours des années

1980. Depuis le départ d'Intair, ce trafic a diminué. Il est important de revenir à ce niveau et de récupérer cette part des revenus de l'aéroport, et il est plus important encore de combler le besoin d'un service aérien de qualité pour favoriser le commerce et attirer de nouvelles entreprises.

Une analyse détaillée du trafic montre qu'un service aérien vers Montréal serait rentable. L'accès aux aéroports de Boston et d'Halifax est également important, étant donné que 80 p. 100 des passagers se rendent ailleurs qu'aux aéroports de correspondance.

Pour mieux accroître le trafic, un partenariat formé de la Miramichi Airport Commission, d'Air Atlantic et de la Charlo Airport Commission, l'aéroport de Charlo devenant un co-terminal, pourrait combiner les marchés des deux aéroports pour les services dans le nord du Nouveau-Brunswick. On a étudié deux exemples de services aériens améliorés, dont l'un serait un service provincial sur Dash 8 assurant la correspondance avec les vols de réactés BAe 146 à partir de Fredericton, et l'autre, sur Dash 8 également réservé aux marchés Chatham/Charlo. Chacun pourrait améliorer considérablement la qualité du service aérien sans trop perturber les horaires d'Air Atlantic.

La Miramichi Airport Commission atteindra cet objectif en combinant ses intérêts avec ceux de Charlo et en obtenant d'Air Atlantic qu'elle améliore les horaires de ses vols. Il lui faudra alors prouver qu'elle peut activer le trafic en organisant l'industrie du tourisme de Miramichi, en mettant sur pied un programme de sensibilisation du public, en développant le système de transport routier et en organisant des services de soutien. En poursuivant les études de marché et en cherchant à augmenter le trafic (par ex. cargo, vols nolisés), Air Atlantic voudra

améliorer continuellement ses services. En 1993-1994, un trafic de 25 000 passagers/an serait un objectif raisonnable.

Entreprises de transport aérien basées à Chatham

Chatham est bien placé pour desservir les marchés spécialisés dans tout le Canada atlantique. En incitant les transporteurs spécialisés à établir leur base à Chatham, on créera des emplois directs au sein de la collectivité et on complétera les services disponibles (par ex. la maintenance des avions) pour stimuler le trafic de l'aéroport. Déjà, Norfolk Aerial Services a déménagé sa base de maintenance d'hiver à Chatham et Laurentide Aviation a mis sur pied une école de pilotage sur une base saisonnière. Dans le domaine de l'épandage aérien, Conair, la plus importante entreprise du genre au Canada, s'est dite intéressée à la création d'une société dans le Canada atlantique basée à Chatham. Deux autres entreprises bien établies ailleurs seraient susceptibles d'établir un centre professionnel d'entraînement au pilotage du niveau du centre de pilotage de Moncton.

La stratégie visant à attirer Conair consiste à mettre l'accent sur la position solide de Miramichi dans le domaine de l'industrie forestière et à en faire la «capitale» de cette industrie y compris le secteur de l'épandage aérien, dans le Canada atlantique. Les activités de formation nécessiteront des salles de cours, des installations de restauration et des locaux d'hébergement. En concluant des ententes avec le MDN et le Miramichi Community College, Chatham peut devenir, à peu de frais et à peu de risque, le site le plus attrayant pour le prochain centre de pilotage du Canada atlantique.

La MAC doit s'assurer que l'aéroport offre à ces entreprises potentielles un ensemble complet d'installations et de services
qui satisfasse leurs besoins aux moindres coûts. Elle pourra alors travailler de concert avec la Province et l'APECA à la réalisation de ces projets.

Centre d'entraînement des pompiers

On a besoin de centraliser l'entraînement des pompiers d'aéroports à cause des effets environnementaux et du coût élevé des aires d'entraînement qui doivent répondre aux exigences environnementales. Une nouvelle technologie est aussi en voie de développement pour la mise au point de simulateurs ultramodernes de lutte incendie, alimentés au propane et contrôlés par ordinateur.

Le Chatham Community College et le service incendie de Chatham sont déjà bien préparés pour organiser la majeure partie des exercices en conditions réelles dans la province, ainsi que la formation spécialisée dans le domaine de la lutte contre les feux de propane et les incendies dans l'industrie. Ils proposent également d'élaborer un programme d'entraînement à la lutte contre les incendies à bord d'aéronef, ce qui répond naturellement aux besoins d'un aéroport, mais ce qui est aussi l'application pour laquelle la technologie de pointe du simulateur a été mise au point au départ.

La stratégie consiste à combiner les possibilités de l'aéroport avec le créneau régional déjà existant pour la formation à la lutte incendie. La tactique principale est d'acquérir la technologie du simulateur et de s'assurer ainsi un avantage concurrentiel sur tout autre site pour l'obtention d'un centre de formation pour l'Est du Canada. Le MDN pourrait être lui-même un

important client du centre. Non seulement cette possibilité créerait-elle des emplois dans la région, mais elle y amènerait un grand nombre de recrues dont beaucoup utiliseraient le service aérien, et tous se procureraient sur le marché local une foule de biens et services. Elle offre également d'autres possibilités de former du personnel aéroportuaire, comme les chauffeurs et les agents de sécurité

Industrie aérospatiale

La perspective de la réparation et de la remise en état des moteurs d'avions est fondée sur le fait que l'existance d'un banc d'essai constitue une économie de premier ordre pour une nouvelle entreprise. Malheureusement, sans ses instruments de mesure, il n'a plus la même valeur. De plus, on a constaté récemment une augmentation importante de la capacité, y compris de nouvelles installations, à Summerside et à Lethbridge. La remise en état des moteurs d'avions représentait, il n'y a pas si longtemps, une belle possibilité, mais ce n'est plus le cas, à cause surtout de la surcapacité de la concurrence. Cependant, on a identifié diverses autres possibilités, dont la remise en état de moteurs à turbine non aéronautiques.

Le défi consiste à bien identifier, localiser et suivre les possibilités de l'industrie aérospatiale qui, bien que très intéressantes (par ex. 500 emplois dans une usine), peuvent prendre des années avant de porter fruit.

La stratégie, pour la Miramichi Airport Commission, est de s'associer avec la Miramichi Region Development Corporation. La MAC surveillera l'industrie par le biais d'associations, d'affiliations et de publications industrielles, et en établissant des réseaux de

contacts. La MRDC peut gérer un parc industriel spécialisé en aéronautique et s'occuper, de concert avec la MAC, de vendre les perspectives élaborées par cette dernière.

Démarches communes

Maintenant que la MAC a déterminé ses perspectives de marché, elle doit continuer à planifier l'aménagement du terrain et des installations en fonction des marchés cibles (c.-à-d. le développement de son produit). Elle doit aussi élaborer un plan opérationnel comprenant les détails de ses plans de missions, de commercialisation et de financement. Ce plan global montrera que la Miramichi Airport Commission est focalisée sur ses objectifs et constituera un facteur clé dans l'obtention du financement des projets.

Stratégie globale

La stratégie globale de développement commercial tient compte du fait que la MAC détient un mandat plus large que celui de la simple exploitation de l'aéroport et qu'elle doit adopter une méthode de gestion rationalisée. La stratégie prévoit que la MAC s'engage dans des partenariats ou des alliances stratégiques avec d'autres parties ayant des objectifs communs.

Conclusion

En prenant les mesures détaillées dans le rapport global préparé en fonction des stratégies proposées, l'Aéroport régional de Miramichi peut devenir une entreprise commerciale rentable offrant une contribution importante à l'économie de la région de Miramichi.

I INTRODUCTION

A. BACKGROUND

The airport at Chatham was an important air defense base for many years. However, the retirement of the CF101 Voodoo interceptor resulted in a rationalization of air defence establishments and the airfield portion of the base became surplus to military needs.

The Miramichi Airport Commission (MAC), a joint body of the towns of Chatham and Newcastle, had operated the civil air terminal at CFB Chatham since 1971. When the entire airfield was declared surplus and offered to the Province of New Brunswick, an agreement was reached involving National Defence (DND), Transport Canada (TC), Atlantic Canada Opportunities Agency (ACOA), and concerned provincial departments for the Commission to assume operation of the airside as well as the terminal.

The balance of the base, the "landside", continues to be occupied by DND's Low Level Air Defense (LLAD) School. In December, 1990 DND announced that this unit would be moved to Alberta in 1995. DND has identified an Air Reserve National Training Centre and two Junior Leadership schools as potential users of the base. However, any additional land and assets that may become surplus to military requirements will not be determined before the summer of 1992. In addition, the Minister of Defence in his statement of September 17, 1991 announced establishment of the advisory group on defence infrastructure; it is due to report to the Minister in May 1992.

In the meantime, action is underway through Treasury Board to transfer title of the land and facilities that have already been declared surplus to the Miramichi Airport Commission. With ownership, MAC will be able to fully develop and utilize the airside assets in order to improve the financial viability of the airport operation and to make a greater contribution to the economic development of the Miramichi region. The first task in pursuing these goals, and the purpose of this study, is to identify commercial opportunities for the Chatham airfield and to prepare action plans for their development.

This study is limited to an examination of opportunities for use of the assets now being transferred. To the extent any of these opportunities may also be able to utilize DND landside assets, this can be identified for possible input to the continuing DND planning process. As well, the focus is on aviation related opportunities that require use of some aspect of the unique airport resources. Finally, the study is focussed on civil use of the assets and does not consider future DND use.

The Miramichi region is not the first area in North America to experience the potential economic impact of reduced military activity. However, experience of the last 30 years has demonstrated many times that former military assets, especially airports, can be redeveloped for civil use, often with offsetting economic benefits for the community. This study has been undertaken to ensure Chatham and the Miramichi region derive the maximum possible benefit from their airport resource.

B. OBJECTIVES

The objective of the study as defined in the Call for Proposals was:

> "To enhance the long term viability of the airfield at Chatham, New Brunswick; and contribute to local economic development in the region through the identification of potential users of surplus facilities at the Chatham airfield."

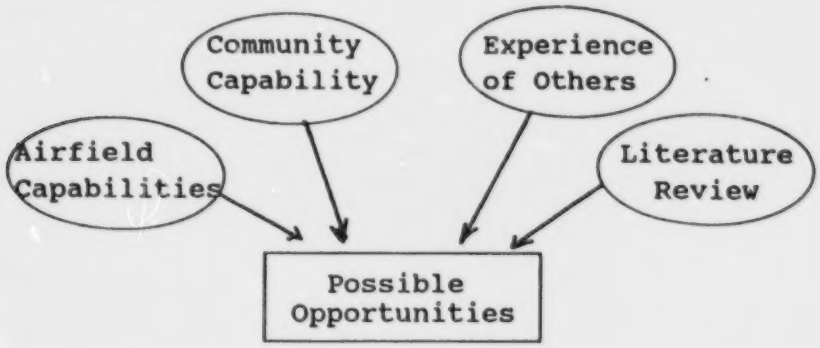
Any economic development at the site will also generate revenue to the airport through user charges and so enhance the viability of the airport. However, the primary objective is seen as contributing to the economic development of the Miramichi region.

C. APPROACH

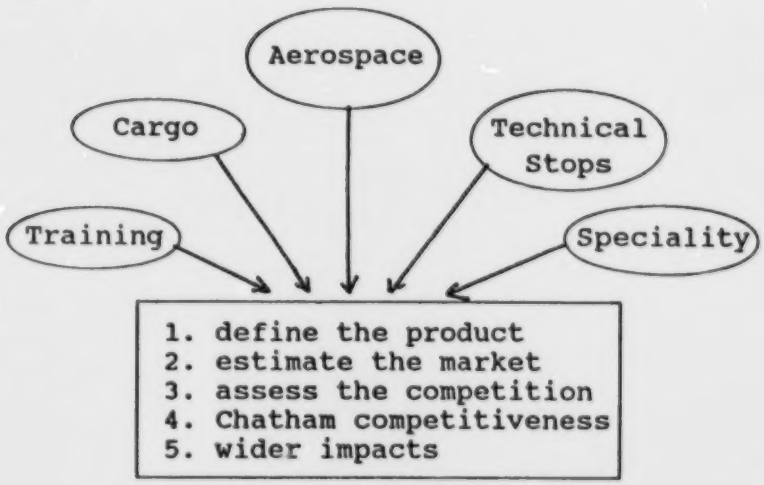
The approach undertaken to pursue the objective is shown graphically in Exhibit I-1.

Exhibit I-1. Study Approach

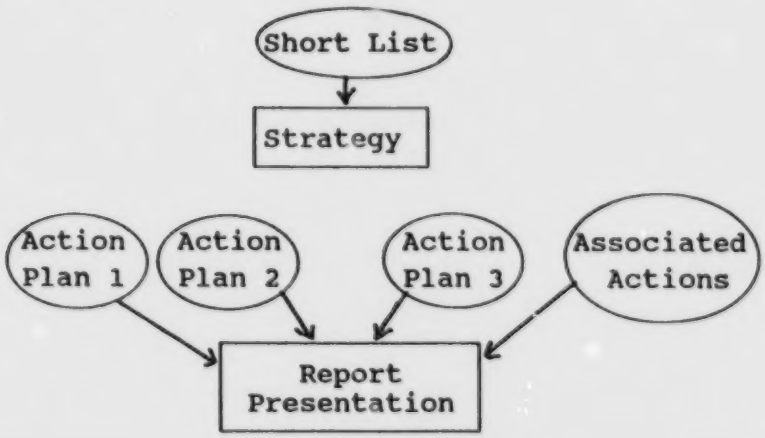
A. Data Gathering



B. Analysis



C. Planning



In Phase A, Data Gathering, an inventory of capabilities and ideas was assembled through extensive interviews (see Appendix A) and review of U.S. and Canadian experience and research. There was then an assessment of all ideas to identify the potential opportunities for the Chatham airfield.

The Phase B Analysis subjected each opportunity to a five step review process. The product proposed had to be definable and affordable. There had to be a market. The market's needs could not be fully satisfied by existing competition. Further, Chatham must have identifiable strengths/advantages to meet the needs of a significant niche in the market place. Finally, net benefit, in the wider context of the region and country, must exist. Only opportunities that passed all five tests could become candidates for the short list.

In Phase C, Planning, each of the high potential opportunities is fully described in the Chatham context. Each is analyzed to verify its potential and to examine the issues associated with its development. An overall strategic approach is set out for each opportunity based on the findings of the analysis. Finally, the specific actions required to develop the opportunity are itemized.

The following Report follows the structure of the study. The Airport and Region are examined in Sections II and III respectively (Phase A); the analysis of the full list of potential prospects, Phase B, is reported in Section IV. Sections V to VIII develop the plans for pursuit of the identified opportunities (Phase C).

The concluding sections identify the associated actions required to complement implementation of the individual commercial prospects action plans (IX), summarize an overall commercial development strategy (X) and give the principal conclusions and recommendations (XI) of the study.

II THE MIRAMICHI AIRPORT

A. FACILITIES

1. Background

The airport at Chatham was first developed in 1941 as part of the war effort. In the late 1940's, the government of Canada and the United States entered the NORAD agreement for the joint protection of the North American continent. As part of that program, the Chatham Air Base was expanded and operated by the Royal Canadian Air Force and, since 1966, by the air element of the Canadian Armed Forces. The early aircraft using the facility were Viking jet interceptors which were replaced by F86 Sabres and later the F101 Voodoos. T33 jet trainers were also frequent users of the Chatham Air Base.

In January of 1971, a civilian air terminal building was opened to support the scheduled passenger service provided by Eastern Provincial Airlines. EPA was acquired by CP Air which all became part of the Canadian Airlines network. An affiliated regional carrier, Inter-Canadien, replaced EPA service. It broke from Canadian Airlines in 1988 and continued to serve Chatham as an independent carrier, Intair. Canadian Airlines then had its "partner" regional carrier Air Atlantic introduce service. Intair ceased scheduled operations in mid 1990. Today, Air Atlantic continues to provide scheduled air services to the community.

In the April 1989 budget speech, the Federal Government announced a reduction of DND activity at Chatham. DND ceased operating the airfield as of August 31, 1990. Units of the air element are no longer based at Chatham although military aircraft still visit the airport in support of land element training exercises. The Miramichi Airport Commission assumed responsibility for operation of the airfield commencing November 1, 1990; buildings transferred were the two alert hangars and associated operations area. Four other hangars still remain at the site together with several military buildings which accommodate the low level air defence training program of the Canadian Armed Forces. This organization recently constructed a major class room and training facility and carry out air defense training on the airfield.

On the 11th of October, 1990, the Department of National Defense and the Miramichi Airport Commission entered into a memorandum of agreement whereby the Commission was given permission to occupy and use 346 hectares of land which include runways, taxiways, control tower, hangars 5 and 6 (alert hangars), runway lighting facilities, an engine test cell, an administration building (between the alert hangars) and navigational aids. A copy of this agreement is at Appendix B. A Treasury Board submission is now being processed to permanently transfer these facilities and possibly some additional buildings to the Miramichi Airport Commission.

Exhibit II-1 is a layout of Chatham Airfield indicating the facilities/land to be transferred to MAC.

In addition to the DND/MAC memorandum of agreement, through which several pieces of mobile equipment are also provided, Transport Canada entered into an agreement with the Airport Commission to provide financial assistance for the operation of the airfield. This agreement is at Appendix C. While the agreement runs five years (September 7, 1990 to September 7, 1995), the amount of the annual operating subsidy is set by negotiation of budgets year to year. Currently, the subsidy is set as 1990-$415,000, 1991-$750,000, and in 1992 will be $650,000. In addition, Transport Canada leased several pieces of mobile equipment to the Commission including a runway sweeper, snowblower and sand truck.

In the fall of 1990, an ACOA funding agreement assisted in converting the military field to civil use. The work undertaken was to convert one of the hangar bays to a maintenance garage, to purchase tools, and equipment, relocate fuel tanks and install a radio controlled approach lighting system, distance measuring equipment (DME), unicom communications, renovations to the administration area and repairs to airport fencing.

All of this activity has culminated in Chatham Airfield now being operated as a civil airport with, however, a military component on the landside supporting the low level air defense training school. This locally run airport boasts the longest runway in the Maritime provinces, an airfield with good weather and strong community support and interest in its future development.

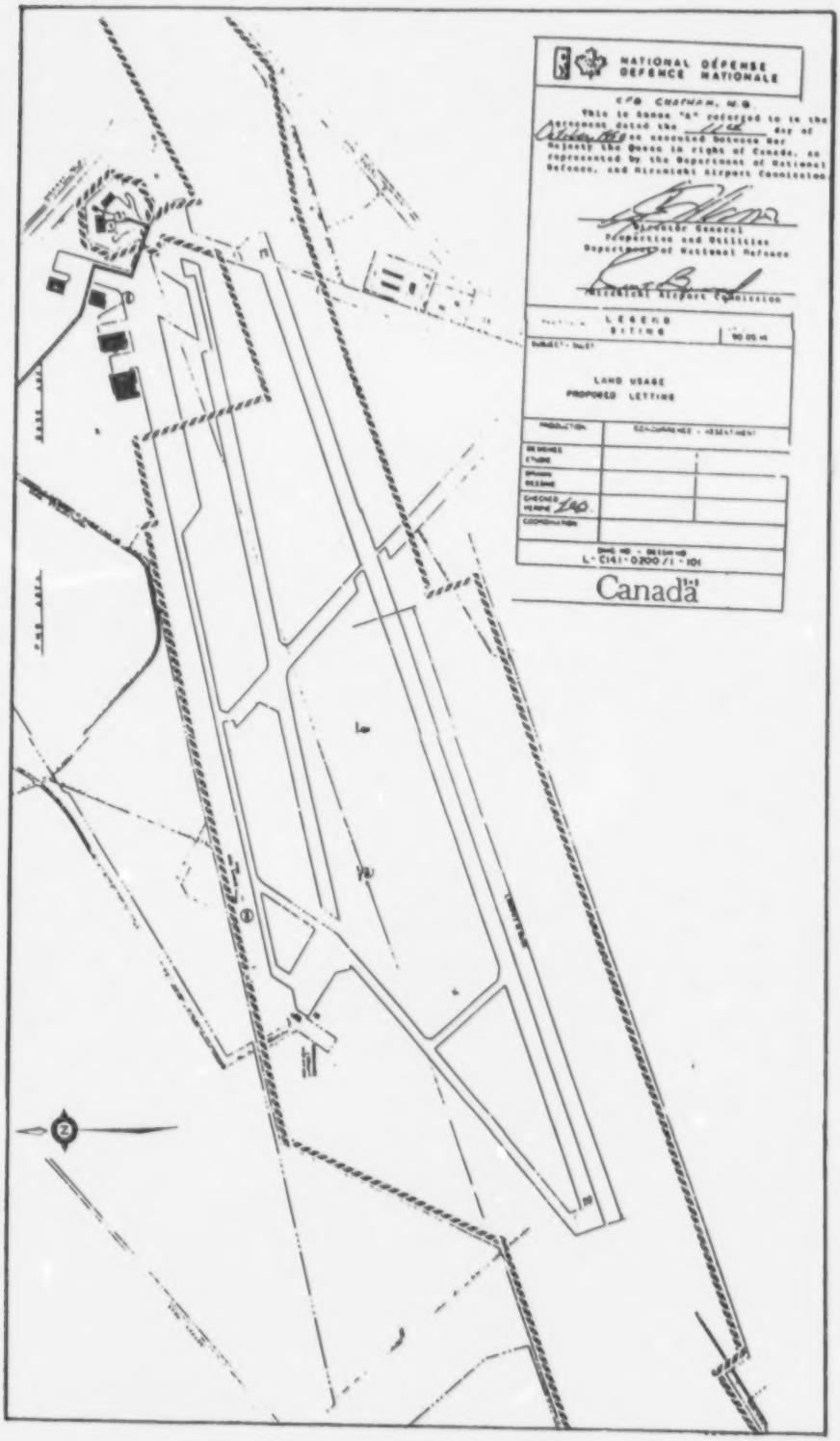


Exhibit II-1. Chatham Airfield

2. Location

The Miramichi Regional Airport is located adjacent and south of the town of Chatham which is eight kilometres east of the town of Newcastle; these are the major communities of the Miramichi region. The airport is 110 feet above sea level and is located at 47 degrees, 0 minutes north latitude and 65 degrees, 27 minutes west longitude. The airfield is south of the Miramichi River which empties into the Gulf of St. Lawrence. The surrounding terrain is flat without hills for several miles or other impediments to aircraft operations. The flight approaches and departures are both clear and, for the most part, avoid any built up or populated areas.

3. Facilities Inventory

(a) Runways

The airport has one operating runway oriented 09/27. It is 10,000 feet long and 150 feet wide. The runway was originally constructed in 1962 with an overlay in 1973. The pavement load rating is given as 12. This load rating will support "jumbo" jets (i.e. B747) and the 150 ft width meets ICAO international airport standard requirements. The runway was inspected by Transport Canada airfield pavement technicians on the 22nd of April, 1991 and is considered to be in excellent condition. Access to the air terminal building ramp is provided through paved taxiway Alpha. Both taxiway A and the apron also have a pavement load rating of 12. The prevailing winds at the airport are out of the west with winds during storm conditions out of the east to northeast. As a consequence, the runway provides better than 95% wind coverage to the majority of commercial aircraft (up to 15 knots cross wind component).

There are three abandoned runways on the airfield as well. One is roughly parallel to runway 09-27 and a second runs close to right angles to runway 09-27 in a 16-34 orientation. This second runway has been used most recently by the Department of Natural Resources aircraft when operating from Chatham airfield. This runway in whole or part could be reactivated through some sweeping, minor repairs and painting. The trees at the side of runway 09-27 might require further clearing and, in addition, the runway lights at the intersection would require some work if the runway portion to the north of the intersection were included. This would make the runway available for daylight VFR operations. While a crosswind runway is not necessary

for current users, it could be a desirable feature for flight training. It is premature to develop cost estimates but opening 3000 ft to the south of 09-27 for light aircraft operating day VFR could likely be covered within operating funds. The third old runway is now used as the access road to the ammunition storage area.

(b) Landing Aids

Runway 09 and 27 both have availability of the NDB (non directional beacon) and DME (distance measuring equipment). The limits for runway 09 using the beacon only are 850 feet cloud ceiling and 2 1/2 miles viability, but using the DME they are improved to 450 feet and 1 mile. Runway 27 using the beacon has limits of 540 feet vertical visibility and 1 1/4 miles, whereas with the DME, these are reduced to 380 feet and 1 mile visibility. Currently the instrument approach procedures are not published for public use and are only available to air carriers as private "company approved" approaches. Current airport usability is summarized in Exhibit II-2.

Exhibit II-2. Chatham Airport Usability

APPROACH MINIMA	RUNWAY(S) AVAILABLE	WEATHER		WIND COVERAGE	USABILITY	UNUSABILITY
VFR	0[illegible]	85.00%	x	96.95	82.41%	2.59%
1000/3-800/2	09-27	2.62%	x	97.24	2.55%	0.07%
800/2-500/1.5	09-27	4.76%	x	98.14	4.68%	0.09%
500/1.5-400/1		2.49%				2.49%
400/1-300/.75		1.92%				1.92%
300/.75-200/.5		1.81%				1.81%
200/.5-100/.25		1.03%				1.03%
100/.25 & BELOW		0.36%				0.36%
		100.00%			89.63%	10.37%

CROSSWIND: 15kts

REMARKS: Crosswind component restricted to 10 Kts for ceilings of 300 ft or less.

Source: Transport Canada

The airport is also equipped with an ARCAL system which is an automatic radio controlled approach lighting system allowing pilots to switch on runway lights using their radio microphone.

Communications to Air Traffic Control (ATC) are available to pilots through a PAL or peripheral transmission system with a radio transceiver located in the air traffic control tower. This gives a direct line to the Atlantic Region air traffic Area Control Centre in Moncton.

The Miramichi Airport Commission operates a "unicom" radio system to provide aircraft advisory information. They can also give ground control advice to aircraft and vehicles and, effective September 19th, commenced carrying out weather observations for the airport. Weather briefing information for other sites is obtained from the flight service stations at Moncton or Charlo.

The runway lighting system available is a low intensity approach for both runway 09 and runway 27. There are flashing strobe runway identification light systems (RILS) and high intensity threshold lights. There is also available a PAPI system (military equivalent of Visual Approach Slope Indicator System (VASIS)) which has been maintained operational since transfer from DND.

(c) Emergency Response Services

Chatham Airport has level 3 CFR service with a capability of delivering 1200 litres water with 264 litres of aqueous foam and 135 kilograms of dry chemical for combating aircraft fires for aircraft up to 18 metres in length. Service is provided 8 hours daily and is available on an overtime call out basis. This service is provided through airport staff who have undertaken training which meets the requirements of Transport Canada.

(d) Customs and Immigration

A Canada Customs Officer is located in the Newcastle Post Office and services the ports of Chatham and Newcastle and the airport. Private aircraft from the United states transit Chatham each year bringing in sportsmen for fishing and hunting. Service is provided for

aircraft up to 15 passengers, 8 hours daily, Monday to Friday, and is available on a call out basis in the evenings. On weekends, aircraft stop at another point for customs clearance before proceeding to Chatham.

(e) Air Terminal Building

The Air Terminal Building is 450 square metres in size and has a ticket counter located at each end of the building. One of these is currently being used by Air Atlantic. A baggage belt of the flat race track type is provided and there is a security hold room which can accommodate 70 passengers (52 seats). Amenities are provided with vending machines. There are two car rental companies represented at the airport. The waiting area has 74 seats.

(f) Fuel

Turbo fuel is available through Irving Oil Limited and their capacity on site is 86,350 litres. No aviation gasoline fuel (i.e. for piston aircraft) is available at the current time, however, negotiations are currently underway to provide aviation gasoline in the spring of 1992.

(g) Ground Handling

Bulmer Aviation Services out of Halifax provide ground handling to Air Atlantic and itinerant aircraft traffic.

B. AIRPORT MANAGEMENT

The Miramichi Airport Commission held its first meeting in January of 1970, and the organization was formally incorporated on February 6, 1974, by the Province of New Brunswick under letters patent, a copy of which is at Appendix D. The Airport Commission originally operated the terminal building with building security provided by Airport Commission employees under the supervision of a part-time manager. The Commission received a small subsidy from Transport Canada and generated revenues from the commercial carriers using the facility in the form of terminal fees, space rental, and fuel sales. In September of 1990, DND handed over operation of the airfield to the Miramichi Airport Commission. A memorandum of agreement was executed between the Department of National Defense and the

Airport Commission for use of the land and buildings for one dollar per year. This included a loan agreement providing several pieces of mobile equipment which was supplemented by additional equipment from Transport Canada.

Transport Canada also committed to subsidizing the airport until 1995 with funding to December 1992 in the amount of $1.8 million. The subsidy was to allow the Commission to hire staff to operate the equipment and maintain the airfield. An ACOA grant in the amount of $643,000 was given to the Commission allowing them to construct administration office areas within the crew "ready" area between the alert hangars and to construct a maintenance garage and fire hall area within one of the hangar bays of each alert hangar. The other two bays of the alert hangars are available to lease.

The Commission structure is made up of a President, a Vice President, a Secretary/Treasurer and three other Directors. As of September 1991, the persons occupying these positions are:

President	Rupert Bernard, (Mayor of Chatham)
Vice-President	Peter Murphy, (Mayor of Newcastle)
Secretary/Treasurer	George Martin
Director	James Doyle
Director	John Donaldson
Director	Ray Stinson

The Board is responsible to oversee the overall planning and direction of the airport with daily operations under the responsibility of the airport manager. Staff under the airport manager are a secretary-clerk, a part-time resource manager, an operations foreman, a heavy equipment mechanic and electrician, one general maintenance person and four heavy equipment operators[1] (two full-time, two part-time). In addition, there are 5 security personnel. Exhibit II-3 is an organization chart of the Commission.

The memorandum of agreement between DND and the Miramichi Airport Commission provides the Miramichi Airport Commission Limited a license to operate the airport, lands and specific buildings and facilities. This agreement can be cancelled on 60 days notice by

1 One of the full time equipment operators also serves as the fire chief in which capacity he reports to the airport manager.

either party or immediately in the event of what is considered an emergency by DND. This license shall in the near future be superceded by transfer of title through a Treasury Board agreement for the land, buildings and certain facilities from the Department of National Defense to the Miramichi Airport Commission.

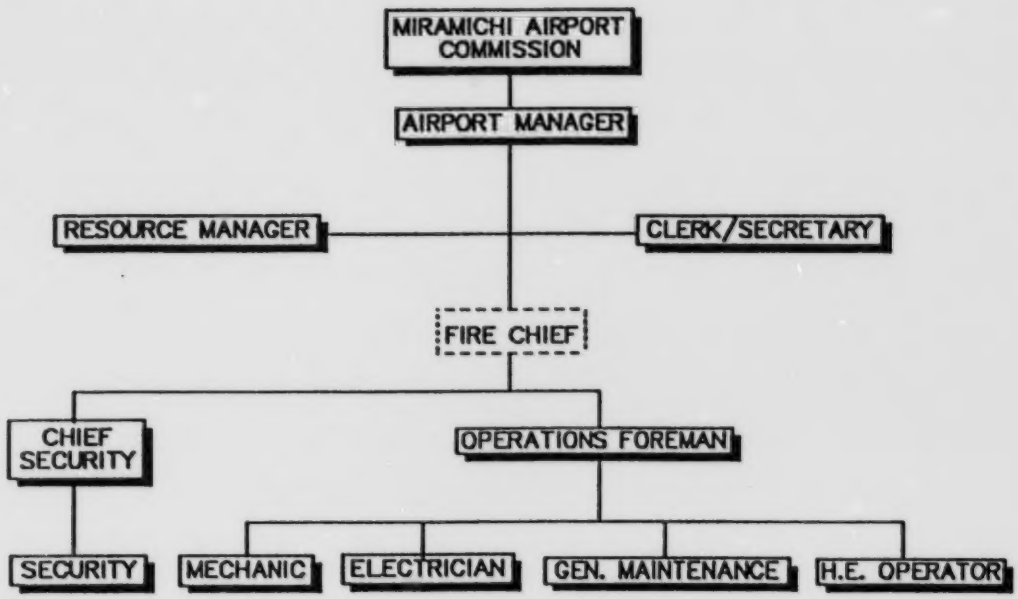


Exhibit II-3. Organization Structure -Miramichi Airport Commission

The agreement between Transport Canada (TC) and the Miramichi Airport Commission Limited was dated September 7, 1990, and provides financial assistance for the operation and maintenance of Chatham Airport. The agreement termination date is the 7th day of September, 1995.

Transport Canada is currently providing a $750,000 annual subsidy and the commission have been requested to reduce that by $100,000 for 1992 and 1993. They will need to re-apply for funding under the subsidy program for 1993/1994.

C. AIRLINE TRAFFIC

1. Airline Services

Domestic operations commenced at Chatham Airport in January of 1970 with Eastern Provincial Airways. The first passenger operations were through DND facilities, however, a new terminal building separate from DND was opened January 31, 1971. Passenger traffic continued to grow at Chatham, peaking in 1988. While there appears to have been a succession of air carriers at Chatham (EPA, CP Air, Inter-Canadien, Intair, Air Atlantic), this is not in fact the case. Changes in air carrier service patterns are more a function of changes in the industry since economic regulatory reform (deregulation) was introduced after 1984. First, EPA was acquired by CP Air which in turn became Canadian Airlines International (CAIL). Intair was first a Canadian Partner affiliated carrier when it started service as Inter-Canadien but then went independent. Air Atlantic came into the market as a replacement Canadian Partner. While it appears that Chatham has had a number of carriers over the past ten years, the succession traces directly from the original EPA service.

The enplaned/deplaned (E/D) traffic figures for 1989 were 17,800 and 1990 were 19,200. 1991 traffic has decreased in part due to competitive service from Moncton and Bathurst and loss of the Intair jet service. For the first seven months of 1991, while Air Atlantic traffic is up 9%, overall traffic is down 45%. During the summer of 1991, Air Atlantic was operating two flights a day to Chatham with a mid day flight to and from Montreal. Another flight arrived in the evening and went out the next morning to Montreal via Charlo. This was changed in October and the evening flight through Chatham is now from Fredericton, continuing to overnight at Charlo. As there is no longer the early morning departure, same day return trips to Montreal are no longer possible. Much of the decline in Chatham traffic appears due to new Air Nova service at Bathurst. In the first year of operation beginning in June 1989, Bathurst experienced 13,621 enplaned/deplaned passengers and in 1990, 31,100 passengers. The historical passenger traffic at Chatham together with the forecast from Transport Canada follows in Exhibit II-4.

Exhibit II-4. Chatham Passenger Statistics

Historical				
Enplaned/Deplaned				
	1980	17,365	1986	20,210
	1981	17,126	1987	22,031
	1982	14,809	1988	22,500
	1983	11,853	1989	17,816
	1984	15,751	1990	19,200
	1985	15,917		
Forecast				
1998	High	32,000		
	Med	25,000		
	Low	17,000		
2003	High	37,000		
	Med	29,000		
	Low	20,000		
2008	Med	33,000		

Source: Transport Canada October 7, 1991.

D. CAPABILITIES

The Chatham Airport runway and taxiway system is sufficiently large and strong to carry any aircraft operating today. The hangars, are capable of storing medium-sized aircraft. Hangar 1, one of the DND hangars, may also be transferred to the Miramichi Airport Commission. While it is structurally sound, the roof on this hangar has deteriorated and will require considerable work (estimated by DND at $435,000) in repairs. There is a large aircraft parking ramp which is still under control of DND. Should this facility become available, large cargo jets or technical stop aircraft could be parked and refueled here.

The south side of the airport has an ammunition storage area which is used by the air defense training school. This facility may also be considered for transfer to the Miramichi Airport Commission.

There is ample airside capacity for new aviation activities such as flying training. The airport has an air traffic control tower, an excellent weather history and the possibility of barracks and other buildings, including hangars, becoming available from DND in the future.

The engine test cell is a unique facility. While some electronic equipment was removed, the physical/mechanical systems are largely intact. Such a facility would be a major expense to duplicate for a jet engine repair and overhaul enterprise.

In summary, the airfield facilities are capable of supporting any size of aircraft operation. Buildings are limited but land is ample. Potential future availability of aprons, hangars and other specialized military buildings[2] would be a further addition to the capability of the airfield to support aeronautical enterprise.

2 An inventory of buildings is provided at Appendix E.

III THE MIRAMICHI REGION

The potential for successful economic development of aviation related enterprise is a product of both the airport itself and the community supporting it. This Section presents relevant regional statistical information and the more qualitative factors that make the airport and the Miramichi community a strong combination.

A. DEMOGRAPHICS

1. History

Jacques Cartier visited the native Micmac community in 1534 as the first recorded tourist/trader. Settlement originated in the late 18th century with Chatham founded in 1780 (incorporated 1896) and Newcastle about 1790 (incorporated 1899). The original economic mainstay was logging and lumbering with ship building being the major industry (Cunard Steamship Line was founded in Chatham in 1825). Fishing and agriculture also provided employment.

In the twentieth century, forestry has been the major industry with pulp and paper, panelboard, plywood and lumber industries; mining has also been important.

2. Geography

The Miramichi Region is largely coincident with Northumberland County and is divided east-west by the Miramichi River system. The southeast is lowlands and rolling hills while terrain to the northwest becomes increasingly mountainous. The principal communities of Chatham and Newcastle are located 8 km apart on the Miramichi, upriver from the Gulf of St. Lawrence. Exhibit III-1 illustrates the region's placement within New Brunswick.

The climate is moderate without extreme temperature ranges. The means for January and July are -9 and 19 degrees respectively. 1000 mm (including 300 cm or 30% as snow) of precipitation per annum is balanced by over 2000 hours of annual sunshine.

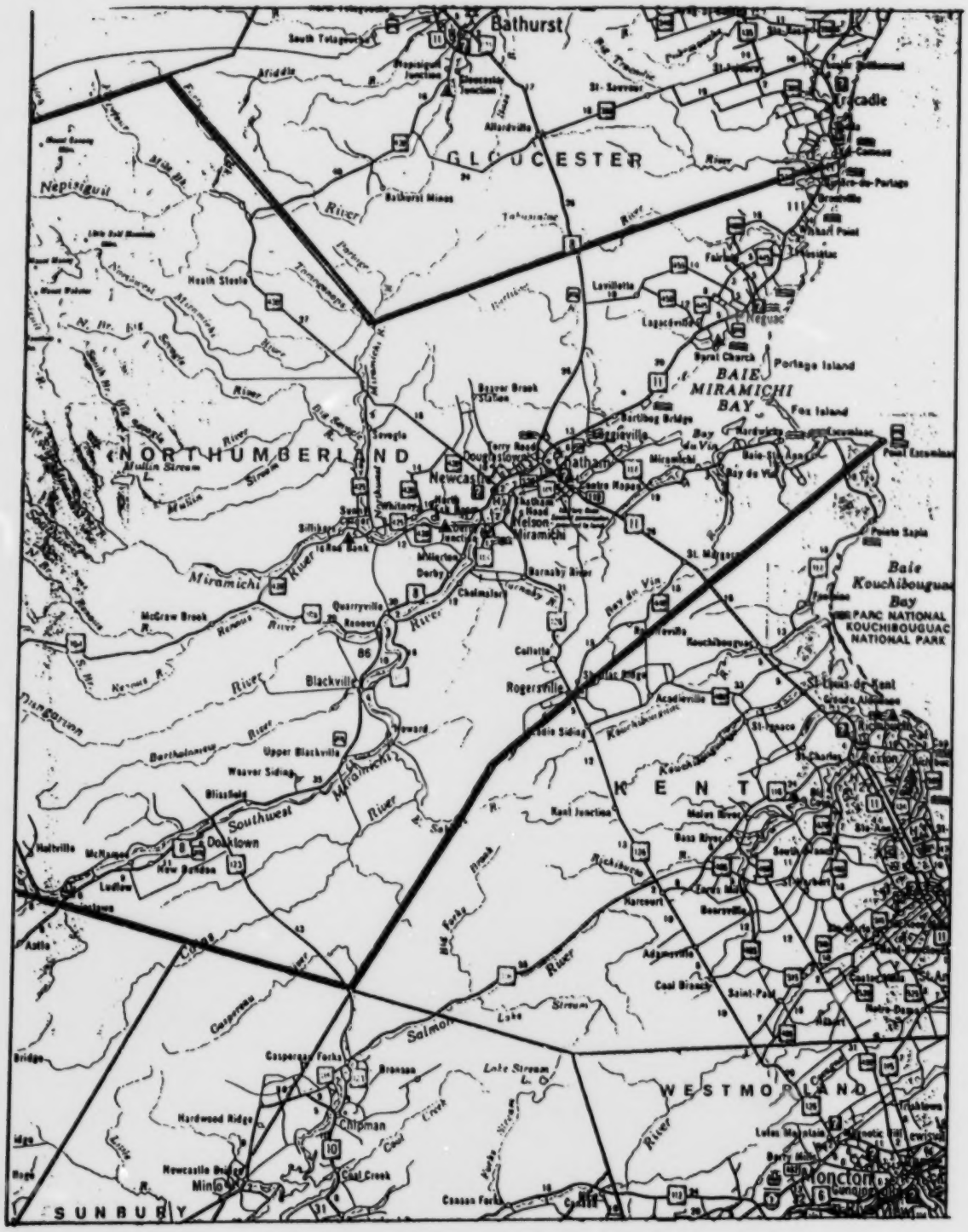
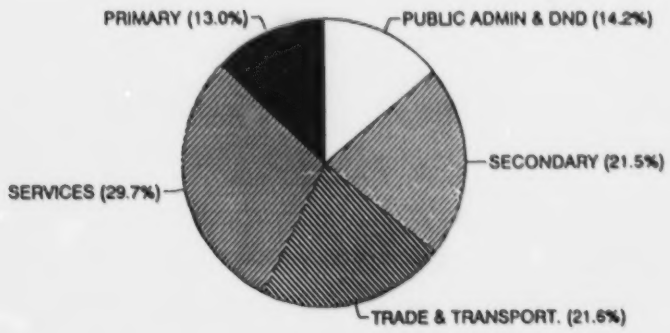


Exhibit III-1. The Miramichi Region (Northumberland County)

3. Population

The 1986 population of 52,985 for the Miramichi Region was a marginal increase over 1971 although there had been a small decline from 1981. The 1991 census is expected to show a recovery consistent with economic improvements of the past five years. The labour force potential in terms of population between 15 and 64 years of age is 64.7% of the population or 34,279. Actual employment is 20,560 distributed as shown in Exhibit III-2. This is an increase in jobs of 1265 or 6.6% over 1981. 32% of the population over 15 years has post secondary eduction.

Exhibit III-2. Employment Distribution



Source: Miramichi Region Development Corporation Inc.

B. CAPACITIES

1. Transportation

The Miramichi is well served by all modes of transportation. Highway 8 comes south from Bathurst and on to the southwest to Fredericton and via #3 on to Maine. Highway 11 connects the Miramichi to Moncton on the south and the Trans Canada east to Halifax. Both Chatham and Newcastle have modern ports with 7.6m draft capable of accommodating moderate size ocean going vessels. Combined they

offer over 16,000 m^2 of enclosed storage and the same area of open storage. CN Rail and VIA pass through Newcastle with a spur rail line into Chatham. There are 10 trucking companies listed in Chatham and Newcastle.

2. Education

The Miramichi Community College is one of a network of 14 in the province. Its specialities are forestry, protective services and heavy equipment operation but it also offers numerous general trades. It is capable of offering contract training in support of specific industry in any field. Recently expanded, it is targeting to serve 1000 full time and 2500 part time students as compared to the previous level of 400 and 1000. The expansion of programs includes correctional services and pulp and paper process workers.

3. Labour

With a potential labour force of 34,279, a participation rate of 60% and a Provincial unemployment rate of 12.4% (actual July 1991), there is an ample available labour supply to support new enterprises.

4. Economic Support

The Miramichi Region Development Corporation is supported by seven area municipalities as well as the provincial Department of Economic Development and Tourism and ACOA. The Community Futures Committee, one of six programs in the Canadian Job Strategy of Employment and Immigration Canada, operates the five available sub-programs including a business development centre and the community initiatives fund. The Atlantic Canada Opportunities Agency (ACOA) operates four programs in support of new economic development as well as ISTC programs and the Cooperation Agreement program. Between these programs, there is extensive support available to facilitate the successful start-up or expansion of aeronautical enterprise at the airport.

5. Recent/Proposed Development

Since 1986, the Miramichi Pulp and Paper Inc. (Repap) has conducted a $1.3 billion expansion and modernization program which has established the mill as Canada's premier producer of light weight coated paper. They also introduced their proprietary Alcell

demonstration plant with new efficiency and minimal environmental impact as the latest technology in pulp processing. The Heath Steele Mine reopened, the Northwood mill reopened as Atlantic Waferboard (but has since closed). The Ports have been modernized and a major dredging project completed. Both "downtowns" are being revitalized.

Today's major industrial employers are:

Miramichi Pulp and Paper	2100
DND (civil jobs)	355
Heath Steele Mine	250
Atlantic Institute (Renous)	200

There are a total of 60 firms located in the Newcastle and Chatham industrial parks.

C. CAPABILITIES

Today's Miramichi is more optimistic and much better organized than 5 to 10 years ago. Having survived the economically difficult 1980's, the community has taken responsibility for itself and is applying new energy to create a vibrant area with the many amenities that support a high quality of life.

The features the Miramichi offers include:

- a focused community solidly in favour of development;
- good transportation infrastructure including all modes;
- supporting infrastructure in industrial parks and a community college with doubled capacity;
- an adaptable labour force, available, well educated and with a special pool of talent in former military personnel; and
- a good quality of life including a healthy environment, and extensive community organizations such as service clubs, youth programs and churches.

The Miramichi community provides a strong mix of supporting services for aviation related development at the airport. It is a more diversified economy today than in the early 70's when military employment of 2500 dominated the Chatham economy. By 1989 with military and civilian personnel down to 1000 and offsetting other development, the base is responsible for less of the local economy. While still vitally important, the Miramichi Airport Commission, with the support of the entire region, is determined to utilize the former military assets of CFB Chatham airfield to attract new aviation related economic development to the region.

IV ANALYSIS OF COMMERCIAL PROSPECTS

As outlined in Section I-C, the approach taken in this study was to first identify all possible commercial uses of a former military airport. This was done through extensive interviews of local, provincial and industry officials, review of civil reuse experience for almost 100 U.S. facilities (through the Office of Economic Adjustment of Department of Defense and NAID - the National Association of Installation Developers), and through the consultant's own experience with other Canadian sites. The analysis then applies five criteria to assess the potential of each opportunity in light of the attributes of the Chatham airfield and the Miramichi Region as documented in the foregoing sections.

It was first necessary to develop a framework in order to organize the prospects, many of which have inter-relationships (Section IV-A). The prospects are then analyzed in Section IV-B and the results are summarized in Section IV-C.

A. PROSPECTS

The total list of commercial prospects for a former military airport can be grouped within nine categories. Three of these are not related to aviation. They are:

- education facilities - e.g., community colleges, technical and vocational training;
- industrial parks - includes a myriad of commercial activities, manufacture, warehousing/distribution, data processing and public administration;
- institutional uses - includes correctional facilities, extended care (rehabilitation, drug treatment, mental health, disabled, immigration processing, elderly), athletic training camps and research organizations.

As other facilities already exist in the Miramichi to serve such needs, the focus of this study is on aviation related opportunities specific to the Chatham airfield; therefore these three categories are not pursued further within this report.

The following six category framework captures all aviation related prospects.

1. Traffic Improvements

This category encompasses traffic enhancement opportunities for actual transportation needs between Chatham and other points. Specific prospects include:

- scheduled air service;
- charter air service;
- air taxi;
- corporate; and
- private aircraft.

2. Airport Services

This is a closely allied category that addresses commercial activities at an airport to serve air traffic. Prospects include:

- ground transportation services;
- aircraft services such as fuel, parking, storage, maintenance; and
- terminal processing services including passenger handling (usually done by airline personnel), concessions or goods handling (air freight/express).

3. Aviation Activities

This category includes operations of aircraft for other than the specific purpose of transporting Chatham originating or destined traffic. The prospects include:

- courier sorting centre;
- cargo transhipment as an inter-modal point including sea-air or truck-air of special commodities such as fresh seafood;
- base of operations for an air carrier (an example would be FirstAir based at Carp, Ont.);
- specialty operations could include aerial applications (e.g., water-bombing, budworm spraying), survey, patrol, search and rescue or any other non-transportation use of aircraft;
- technical stops is the use of an airport as an airway service station, generally for fuel but may include catering and other transient services; and

- aviation museum/events can include a static attraction and air shows.

4. Aeronautical Training

This category can be sub-divided into three broad prospects each of which may have specialty niches. These are:

- airport operations trades such as machine driver operators (MDO's), emergency response (i.e. fire fighters), security;
- aircraft servicing includes mechanics (air maintenance engineers or AME's) and technicians in sheet metal, non destructive testing, avionics, computer controlled processing, etc.; and
- flight crews are primarily pilots but may include flight attendants, observers, etc.

5. Military Operations

This category covers prospects involving the military as a customer for use of a civil airport as distinct from a dedicated military base[3]. They include:

- military reserve units such as a utility squadron or ground support (helicopters) unit;
- training exercises for units from military bases where there may be restrictions on training activities;
- "schools" where military personnel take specialized training at a joint civil facility; and
- specialized support where the airport is utilized as a launch facility for military activities elsewhere (an example would be Pembroke airport used for tactical boarding of troop deployments from the Pettawawa army base).

6. Aerospace

This category encompasses all industrial activity related to aircraft and aviation support. Prospects are:

- airframe manufacture, conversion or repair and overhaul;
- engine manufacture or repair and overhaul;

3 This study does not address opportunities for a dedicated military base.

- component manufacture or overhaul (e.g. Dowty specializes in landing gear);
- aircraft stripping and refinishing;
- aircraft outfitting related to interiors;
- "active" storage for surplus aircraft intended to be put back in service; and
- avionics which covers all electronic equipment associated with modern aircraft.

The above six major categories have a combined total of 28 prospects. This framework is sufficient to encompass all commercial prospects for Chatham and to facilitate an analysis of their potential as opportunities for the Miramichi Airport Commission in furthering its objectives for economic development and airport viability.

B. ANALYSIS OF PROSPECTS

The analysis of the 28 prospects required an assessment to be made of the five "tests" as described in Section I-C. These tests are criteria that must be satisfied, or at least not violated, in order for a prospect to be a viable opportunity for Chatham. The criteria are:

- Airfield Capability - the Chatham airfield must be fundamentally capable of supporting the aviation activity involved in the prospect; certain additional equipment or services may be necessary but major capital works (e.g. over $10 million) would not;

- Market Need - there must be a market niche that requires the services or products of the commercial prospect;

- Competition - there must not be competitor sites already firmly entrenched in the market place that are already fully satisfying the market's needs;

- Competitive Features - there must be one or more features of the Chatham airfield that can be utilized to differentiate Chatham's "product" in attracting the market niche; and

- Net Benefit - there must be a net benefit to Atlantic Canada. If a prospect involves a relocation of an aviation activity from within the region, then it must have greater overall scope for expanding the activity at Chatham.

In applying these tests, an assessment was made of the situation with respect to each criterion. The assessment of each test for each prospect is made as:

- Positive (+) - the situation favours development of the prospect. For example, most prospects received a positive (+) assessment with respect to "airfield capabilities" because, as reported in Section II, the airfield is capable of supporting most aviation activities.

- Neutral (0) - the situation neither favours or rules out the prospect. For example, the majority of prospects received a neutral assessment on the "competitive features" test because while there was no particular competitive feature neither was there a particular required feature that would be impractical to provide at Chatham.

- Negative (-) - this assessment of the situation with respect to the "tests" tends to rule out the potential of the prospect as an opportunity for Chatham. For example, twelve of the 28 prospects received a negative assessment on the test of "competition" where the market is already saturated by better positioned competitors.

In interpreting the results of these assessments in order to come to an overall rating, a prospect needed to "score" a positive rating in three or four of the five tests, while the other one or two tests were no worse than neutral resulting in an overall score of 3 or 4 in order to be rated a high potential opportunity. This is not to say that all criteria are weighted equally. It is a "pass or fail" situation where each criterion must be satisfied in order to be a viable opportunity.

A prospect receiving minimal positive assessments, or enough positive assessment to balance any negative tests, and still have a net result of 1 or 2 is considered a medium potential opportunity. A prospect receiving an overall result that is neutral or negative is considered to be a low potential opportunity for the Chatham airfield.

These overall ratings are interpreted as follows:

- Low - not likely to ever be commercially viable at the Chatham airfield because of declining markets or lack of competitive features in a saturated market.

- Medium - a possible opportunity in the future when either constraints are relaxed, conditions improve or the case where the short to medium term "pay-off" in terms of the objectives is minimal. They may be of further ancillary interest in this study as incremental prospects to enhance the viability of high potential opportunities or they may be prospects that airport management can better pursue themselves beyond the context of this study;

- High - opportunities for which there are under served market needs, the Chatham facility has a competitive advantage, the "returns" are substantial, and results can be anticipated in the near term.

The following narrative provides a brief recap of the situation for each prospect with respect to each of the criteria tests in order to explain the analysis assessments.

Following the narrative, the analysis ratings are summarized in Exhibit IV-1.

1. Air Traffic Improvements

a) Scheduled Air Services

(i) Airfield Capability - rated positive.
The airfield now supports scheduled services.

(ii) Market Need - positive.
Statistics show historical demands of over 20,000 passenger enplaned/deplaned per year. As current levels are half that, there is an apparent market need.

(iii) Competition - rated neutral.
Air services are also available at Moncton or Bathurst but these communities have no inherent advantage beyond the quality of the services offered there.

(iv) Competitive Features - rated neutral.
At present, Chatham has no competitive feature over the competing cities although an action plan to develop the opportunity could include the development of such features.

(v) Net Benefit - rated positive.
A net benêfit is achieved two ways, first by stimulating additional travel through improved service and, secondly, by the indirect facilitation of economic development.

Overall Rating - High potential.
Based on a "score" of "3" with three positive and two neutral criteria assessments.

b) Charter Air Service

(i) Airfield Capability - rated positive.
Limited charter activity now takes place.

(ii) Market Need - rated neutral.
A market was identified for groups visiting Miramichi fishing camps. However, this market is too small to support frequent, large aircraft charter flights.

(iii) Competition - rated neutral.
This market also utilizes Fredericton, Moncton, Bathurst or Charlo but they have no unique advantage over Chatham.

(iv) Competitive Features - rated neutral.
While Chatham may be closer to some camps, other airports have wider services such as navigation aids, customs clearance for more than 15 people, etc. that neutralize Chatham's location advantage.

(v) Net Benefit - rated neutral.
Whichever New Brunswick airport is used, the economic benefit for New Brunswick is the same.

Overall Rating - Medium potential; Score 1. While there is nothing against this prospect, the small size of this niche market means it can not be a key strategic opportunity for the airport. It may have a role as a supplemental market and so be an enhancing feature for attracting more scheduled services or a based carrier.

c) Air Taxi

d) Corporate

e) Private

As these three prospects are similar and receive generally identical ratings they are discussed together.

(i) Airfield Capability - rated positive.
The airfield can support air taxi (local small aircraft charter), corporate or private aircraft operations.

(ii) Market Need - rated neutral.
Like charter, all three market segments have need to use Chatham but overall demand is small.

(iii) Competition - rated neutral.
All of the airports mentioned above can also serve these markets but have no generic advantage.

(iv) Competitive Features - rated neutral.
Chatham currently has no unique facility or service to attract these users if they do not otherwise have business in Chatham.

(v) Net Benefit - rated neutral.
In completing a transportation function there is no net benefit whether an air taxi or corporate operator uses Chatham or Bathurst. There may be a small net benefit if private aircraft activity by local residents increases.

Overall Rating - Medium potential; Score 1. (private 2)

The market demands from these prospects are too small to be strategically significant in airport development. However, the airport can encourage their use of Chatham through on-going marketing of the airport and by policies (e.g. user fees) that make them feel welcome. The limited air taxi market could enhance attractiveness of Chatham to a based specialty carrier.

2. Airport Services

a) Ground Transportation

b) Aircraft Services

c) Terminal Processing Services

The three prospects within this category are discussed together as they receive identical assessments on all criteria.

(i) Airfield Capability - rated positive.
Physically, any of these services can be provided at Chatham.

(ii) Market Need - rated neutral.
These are all prospects that require airport activity to give them a market. While traffic volumes are now small, developing traffic through other opportunities can create a market for these services.

(iii) Competition - rated neutral.
As markets for these services are site specific, the competition from other airports is not a factor.

(iv) Competitive Features - rated neutral.
As above, however, these services in themselves may be competitive features in developing other opportunities.

(v) Net Benefit - rated neutral.
Any benefits created by developing these services are properly credited to the larger opportunity which these support. For example, new jobs in passenger terminal processing services in support of expanded scheduled service are a benefit of that opportunity.

Overall Rating - Rated medium, Score of 1.
These prospects do not have a market base to be primary economic generators but they may themselves be features as part of the action plan for high potential opportunities.

3. Aviation Activities

a) Air Courier Sorting Centre

(i) Airfield Capability - rated positive.
While the airfield can support aircraft operation for this activity a suitable building would be required. A bay of an alert hangar could be developed or a DND building.

(ii) Market Demand - rated positive.
The total Maritime region market could likely support a consolidation and distribution centre.

(iii) Competition - rated negative.
Moncton has already firmly established itself in this role.

(iv) Competitive Features - rated negative.
Chatham is not in a strategically central location (like Moncton).

(v) Net Benefit - rated neutral.
As the Maritime market is only large enough for one centre, there is no net advantage to New Brunswick to relocate this activity from Moncton.

Overall Rating - Low potential, Score 0.

b) Air Cargo Transhipment

(i) Airfield Capability - rated positive.
The airfield could handle large cargo aircraft. It is likely ramp space could be provided and a building or hangar modified for cargo handling.

(ii) Market Demand - rated neutral
Two types of cargo transhipment were identified: sea-air international and local truck-air for seafood product. Air to air hub transhipment between U.S. and European points is another prospect.

(iii) Competition - rated negative.
Ports like Halifax are better positioned and equipped for sea-air. Moncton is more central for consolidation of maritime seafood cargo. Bangor, Maine or Newfoundland airports are better located and equipped for air - air transhipment.

(iv) Competitive Features - rated neutral.
One possibility was if regular ship visits had a suitable itinerary for sea-air but further investigation with Repap found this would not be feasible. Seafood products for which Chatham would have a location advantage were found to be too small and irregular to support a centre at Chatham.

(v) Net Benefit - rated neutral.
There is no benefit where there is no market.

Overall Rating - Low potential, Score 0.

c) Base of Operations

(i) Airfield Capability - rated positive.
Chatham airfield has all of the basic airport facilities and services for an air carrier base.

(ii) Market Demand - rated positive.
Two specific candidate companies (Conair and Provincial Airlines) were identified. Norfolk Aerial Services has already moved its base from Fredericton and Laurentide Air Services from Montreal started a seasonal base for flight training.

(iii) Competition - rated neutral
No other New Brunswick airport has special advantages over Chatham.

(iv) Competitive Features - rated positive.
Chatham has advantages in uncongested airspace, good weather and present and potential ex-military buildings.

(v) Net Benefit - rated positive.
As candidate companies are from outside the region, there is a net benefit in incremental activity. There is direct benefit in jobs and local purchasing.

Overall Rating - High potential, Score 4.
Attracting carriers to establish bases at Chatham has near term, direct benefits.

d) Specialty Operations

(i) Airfield Capability - rated positive.
Chatham has already supported seasonal water bombing and budworm spraying operations.

(ii) Market Need - rated neutral.
There are a number of specialty markets for New Brunswick and the Maritimes now being served from other airports.

(iii) Competition - rated neutral.
While other sites now serve these markets, they have no special advantages over Chatham.

(iv) Competitive Features - rated positive.
Chatham has a good central location for maritime markets for specialty operations.

(v) Net Benefit - rated neutral.
Activities at Chatham would largely be relocations from other maritime region sites.

Overall Rating - Medium potential, Score 2.
The strength of this prospect is the combination with the Base of Operations prospect in attracting air carriers involved in specialty operations.

e) Technical Stops

(i) Airfield Capability - rated positive.
While the runway can handle any aircraft, a considerable investment would be required in servicing equipment.

(ii) Market Need - rated neutral.
While there is a market for trans Atlantic traffic to make technical stops, it is declining because of longer aircraft range (i.e. fewer aircraft need a technical stop).

(iii) Competition - rated negative.
Bangor, Shannon and Gander (among others) already serve this market well.

(iv) Competitive Features - rated neutral.
While runway length is a feature, many more features would be required to compete.

(v) Net Benefit - rated positive.
However, net benefit would be small from a small and declining market.

Overall Rating - Medium potential, Score 1.
Occasional traffic might be attracted in some circumstances.

f) Aviation Museum/Events

(i) Airfield Capability - rated positive.

(ii) Market Need - rated neutral.
The market would be small and local. Activities in this area have some potential as a tourist attraction.

(iii) Competition - rated neutral.
Other sites might serve larger population centres but have little other advantage.

(iv) Competitive Features - rated positive.
Aviation attractions on a niche of air defence can build on the CFB Chatham tradition and existing static displays (the Sabre and Voodoo).

(v) Net Benefit - rated neutral.
While new activities are a benefit, the impact would be modest.

Overall Rating - Medium potential, Score 2.
This is an initiative that could best be pursued within the local community.

4. Aviation Training

a) Airport Trades

(i) Airfield Capability - rated positive.
Land and the airfield gives a basic capability that College or DND facilities could supplement.

(ii) Market Need - rated positive.
The trend towards centralized fire-fighter training was reported. The College also noted capability to provide airport security personnel training and heavy equipment operation.

(iii) Competition - rated neutral.
Most of this training is now done on-the-job at the airport of employment. There are no other "schools" offering this specific training for firefighters and other airport trades.

(iv) Competitive Features - rated positive.
Acquiring a state-of-the-art trainer (computer controlled, propane fired) would be a unique feature. Local expertise in the College and the fire training facility give Chatham a head start in this area.

(v) Net Benefit - rated neutral.
If training were limited to New Brunswick or even Atlantic Canada, there would be no net import of economic activity. There should be indirect benefit in terms of more efficient, better trained personnel.

Overall Rating - High potential, Score 3.
Centralized training for airport trades, particularly firefighters, is a new market opportunity that Chatham is equipped to initiate.

b) Aircraft Trades

(i) Airfield Capability - rated negative.
There is currently no base of aeronautical enterprise to provide for the practical side of such training.

(ii) Market Need - rated positive.
National studies have identified near term shortages in these trades that will require expansion of training programs.

(iii) Competition - rated negative.
The college in Moncton has the mandate for this training and is well entrenched in the market.

(iv) Competitive Features - rated negative.
Chatham lacks core infrastructure, a base of aeronautical enterprise or local expertise to pursue this prospect in a major way.

(v) Net Benefit - rated neutral.
At any practical scale, Chatham would only be taking market from other N.B. areas.

Overall Rating - Low potential, Score -2.
Limited training in support of a specific enterprise could be arranged with the support of the Moncton College but this would only be a feature in attracting an aerospace enterprise, not a strategic opportunity in itself.

c) Flight Crews

(i) Airfield Capability - rated positive.
Runways, weather and air space give all the basic capabilities for flight crew (pilot) training.

(ii) Market Need - rated positive.
Despite the current recession, long term forecasts based on aircraft orders and retirements will make this an expanding market in the coming years.

(iii) Competition - rated negative.
The Moncton Flight Centre dominates the regional market and already caters to foreign students.

(iv) Competitive Features - rated positive.
The basic features are noted above. There are also potential features in classrooms, hangars and accommodation through the College and/or DND.

(v) Net Benefit - rated neutral.
This would apply in the near term. There could be a net benefit in the longer term if the market need expands sufficiently to require a second N.B. centre.

Overall Rating - Medium potential, Score 2.
While current conditions appear to limit the scope for this prospect in the near term, it may become a viable opportunity in the future.

5. Military Operations

As noted previously, this study is limited to the examination of potential commercial prospects. Therefore, examination of military prospects is limited to consideration as a potential customer for civil airport services. It does not consider direct military base opportunities such as reactivating an air defence role with forces relocated from Europe.

Again, the ratings of prospects in the military operations category are similar and so are discussed together.

(i) Airfield Capability - rated positive.
As a former military airfield, its basic design caters to military use although much of the equipment and services would now be lacking.

(ii) Market Need - rated neutral.
The military market in general is declining and is fully served (over-served) by existing bases. However, small niche areas may be identified such as the National Guard use.

(iii) Competition - rated neutral.
While existing bases fully serve military needs, there is no intrinsic feature why they do so better than Chatham could.

(iv) Competitive Features - rated neutral.
This is a balanced rating based on the continued existence of DND features like the Tracadie Range and airspace reservations against the withdrawal of military air operations equipment and services.

(v) Net Benefit - rated neutral.
Any net benefit would depend on where the military activity was shifted from (i.e. outside or within the region) or if it were "compensation" for a military reduction. This would be the case in bringing in a Junior Leadership School because the Low Level Air Defence School moves to Alberta.

Overall Rating - Medium potential, Score +1.
Small markets such as National Guard use should continue to be promoted but do not represent a key commercial strategic opportunity.

Other military uses such as an Air Reserve unit, specialized schools and training exercises are complexly interwoven with DND's future at Chatham. This is best handled by MAC and the local community. Should DND propose to further reduce its activity or close the base, the Southport case gives the precedent for obtaining DND commitment to continue certain functions. This can give an "anchor tenant" for further civil redevelopment of the base.

6. Aerospace

Each of the seven aerospace prospects face a similar situation. In this section, the variations for each prospect are discussed under the criteria headings.

(i) Airfield Capability - neutral rating.
Aerospace enterprises are more concerned with serviced land and buildings for plants. The only area Chatham has a feature is the test cell facility in support of engine work. The climate is against the active storage prospect where dry desert conditions are required.

(ii) Market Need - rated positive.
All areas of aerospace industry have followed a strong upward trend. Reduced military needs have affected some sectors but world civil air traffic is still forecast to double over the next 10 to 15 years. Aerospace enterprise is strongly export oriented.

(iii) Competition - rated negative.
Strong centres of the aerospace industry (e.g. Toronto, Montreal) have the labour base and many supporting services that sophisticated aerospace industries need. Also, while markets are worldwide, so is the competition.

(iv) Competitive Features - rated neutral.
In larger (e.g., airframe) or more complex (eg. avionics) sectors, Chatham does not have the range of supporting services required that can only be found in major metropolitan centres. In other

specialty areas like components, outfitting or refinishing, Chatham can be on an equal footing with any other smaller centre. Only with the engine test cell does Chatham enjoy a unique feature for attracting an aero engine related repair and overhaul enterprise.

(v) Net Benefit - rated positive.
Any new aerospace enterprise would be attracted from outside Atlantic Canada and so would be a net benefit for the region.

Overall Rating -
Most sectors of aerospace have low potential for Chatham. However, niches occur such as a light aircraft assembly plant (Piper) or in new technology (e.g. robotic refinishing). Such prospects must be considered medium potential as good prospects but in the longer term. The near term prospect that may have high potential is the aero engine opportunity.

Exhibit IV-1 tabulates the above assessment ratings.

C. RECOMMENDED OPPORTUNITIES

As a result of the identification and analysis of commercial prospects, four high potential opportunities are recommended for detailed investigation and action planning. These are:

- the enhancement of scheduled air services;
- attraction of specialty air carriers to establish permanent bases;
- development of an airport fire fighting training centre; and
- establishment of an aircraft engine repair and overhaul facility.

In the development of action plans, certain prospects of limited market size or economic impact should be further considered as enhancements or features in developing the high potential opportunities. In the case of enhancing scheduled air service, incremental markets in charter, courier and freight improve viability; provision of improved ground transport may attract a higher traffic market share to use Chatham; and availability of terminal processing services may facilitate attraction of carriers through reducing their station costs. The attractiveness of Chatham as a base of operations for specialty air carriers will be enhanced by the market demand for aircraft services, air taxi and for specialty operations.

Exhibit IV-1. Summary of Analysis of Commercial Prospects

Commercial Prospect	Airfield Capability	Market Need	Competition	Competitive Features	Net Benefit	Net Score	Overall Rating
1. Traffic							
a) scheduled	+	+	0	0	+	3	H
b) charter	+	0	0	0	0	1	M
c) air taxi	+	0	0	0	0	1	M
d) corporate	+	0	0	0	0	1	M
e) private	+	0	0	0	+	2	M
2. Services							
a) ground transport	+	0	0	0	0	1	M
b) aircraft services	+	0	0	0	0	1	M
c) terminal services	+	0	0	0	0	1	M
3. Aviation Activities							
a) courier sorting	+	+	-	-	0	0	L
b) cargo transhipment	+	0	-	0	0	0	L
c) base of operations	+	+	0	+	+	4	H
d) specialty operations	+	0	0	+	0	2	M
e) technical stops	+	0	-	0	1	1	M
f) events	+	0	0	+	0	2	M
4. Aeronautical Training							
a) airport trades	+	+	0	+	0	3	H
b) aircraft trades	-	+	-	-	0	-2	L
c) flight crews	+	+	-	+	0	2	M
5. Military Operations							
a) reserve unit	+	0	0	0	0	1	M
b) training exercises	+	0	0	0	0	1	M
c) special schools	+	0	0	0	0	1	M
d) special support	+	0	0	0	0	1	M
6. Aerospace							
a) airframe	0	+	-	-	+	0	L
b) engines	+	+	0	+	+	4	H
c) components	0	0	-	0	+	0	L
d) refinishing	0	+	-	0	+	1	M
e) outfitting	0	0	-	0	+	0	L
f) storage	-	0	-	0	0	-1	L
g) avionics	0	+	-	-	+	0	L

There are, finally, a number of commercial prospects that, while having limited markets or only longer term benefits, are still potentially worthwhile. The Miramichi Airport Commission should factor these into their own on-going action planning and marketing programs. Such prospects include:

- promoting use of Chatham to corporate aircraft operators;

- encouraging private aircraft use through facilitating a flying club;
- "wholesaling" technical stop capabilities to other airports in this market place to feature Chatham as an available alternate;
- initiating the formation of a volunteer group to support the airport in public relations, coordinating events like the airshow and perhaps developing an aviation museum featuring air defence;
- encouraging flight training operations;
- establishing on-going consultation with DND and the Minister's Infrastructure Review Commission. Chatham is at risk as a permanent military base and it may be best to take a proactive stance. MAC can follow the Southport model to seek on-going military activity (reserve squadron, special schools, training exercises, support operations) as tenants of certain buildings/facilities as part of any agreement in MAC accepting a transfer of the landside of the base; and
- monitoring technological developments in the aerospace industry for new niches, such as robotic refinishing, that may develop. One avenue to do this would be through membership in the Aerospace Industries Association of Canada (AIAC).

The following four Sections report on the detailed investigation, strategy development and action planning for the four recommended high potential commercial prospects.

V SCHEDULED AIR SERVICES

A. DESCRIPTION

Until September 1990, Chatham had competitive air services by Air Atlantic and Intair, the latter carrier with modern F100 jet aircraft. In the seven months ending July 1990, Chatham had 12,461 enplaned or deplaned passenger movements that would project to over 21,000 on an annual basis. For the same seven months of 1991, there were only 6,926 movements which, while an increase of 8.6% for Air Atlantic, was still a drop of 44.4% in total traffic.

Scheduled passenger service is a most important factor in airport revenue: it generates landing fees, and concession fees for fuel and terminal services. There is a proven market of over 20,000 passengers per year. Restoring this level of scheduled air services, and ultimately expanding it, is a high priority. It is also important because of the indirect economic benefits of good quality air services. Air service supports the regional economy with business travel for existing businesses to service their markets and to receive supporting services such as suppliers and equipment repairs. Even more importantly, the availability of air service is critical in order to attract new business to locate in the Miramichi region. A well equipped and serviced airport is one of the three most important factors evaluated by companies when considering a location.

In seeking improved air service, a community has a limited market to which to sell itself. Since deregulation, the airline industry has consolidated into an oligopoly of integrated networks. Economies of scope make entry by new carriers extremely difficult, as Intair discovered. Domestically, there are only two airport customers, the Air Canada network and the Canadian Airlines network. Recently the industry has become even more concentrated as the major carriers moved to acquire and consolidate their regional carrier partners. In fact, Air Atlantic is the only remaining affiliated regional carrier that is not majority owned by its major carrier partner[4].

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4 The Canadian Partner carrier Calmair is also 45% owned by Canadian but is more a specialized northern carrier than a regional carrier in the same sense as Air Atlantic.

The second key characteristic of today's airline industry is the hub and spoke route pattern. As Chatham is a spoke, it will be served with turboprop commuter flights to hub points. The most important domestic hub is Toronto while Halifax is the regional hub point for Atlantic Canada. There is no obvious hub point in New Brunswick because of the split of traffic over three principal airports (Moncton, Fredericton and Saint John). This factor also limits opportunities for intra-provincial services.

In today's deregulated airline industry, an airport must compete for traffic business just like the airlines do. There are several factors affecting the passenger's competitive choice in air services. Examples are fares, frequency, destinations and aircraft type. If the airport is at a disadvantage in one or more of these factors, then a Newcastle resident may drive to Moncton for their flight; alternatively, a good product can attract a Bathurst resident to drive to Chatham.

Exhibit V-1 illustrates comparative air fares for economy (Y class - full fare, unrestricted) and "seat sale" (V class - restricted, discount) fares on a round trip basis, exclusive of taxes.

Exhibit V-1. Comparative Air Fares

From To	Chatham Y/V	Moncton Y/V	Bathurst Y/V	Charlo Y/V
Montreal	504/176	482/169	504/176	504/176
Toronto	644/225	644/224	644/225	644/225
Halifax	504/176	304/106	434/152	434/152
Ottawa	552/193	528/185	528/185	552/193

Source: Gemini Computer Reservations System, September, 1991.

Generally, fares are comparable for Chatham and the other north east New Brunswick airports at Bathurst and Charlo. Moncton has slightly lower fares but not enough to sway customer choice if Chatham were the more convenient airport. The exception is to Halifax where there is no service from Chatham (except via Montreal) whereas Charlo and Bathurst have a service via Fredericton. Consequently, it would be expected that a traveller to Halifax or beyond would drive to Moncton

rather than fly from Chatham. More than likely, once in their car, the traveller would continue by road to Halifax. Not only do airports and airlines compete for air travellers, but the air mode competes with the automobile.

A minimum frequency for a viable air service is generally considered to be twice daily although once daily may suffice in some markets. This not only permits same day return business trips to the hub point but also gives more flexibility in connecting to beyond points. Until the October 27th winter schedule change, Chatham had twice daily service to Montreal as shown in Exhibit V-2.

Exhibit V-2. Chatham-Montreal Schedule Summer 1991

	Depart	Arrive	Stops
Chatham to Montreal	0715	0820	0
	1330	1400	1
Montreal to Chatham	1030	1310	0
	1830	2055	1

However, with the winter schedule, Air Atlantic is no longer overnighting an aircraft in Chatham thus losing the evening flight from Montreal and the early morning flight to Montreal. Instead, Air Atlantic is placing a Dash 8 evening flight from Halifax via Fredericton to Chatham that carries on to overnight at Charlo. This gives a service from Fredericton and Halifax but as there is no flight to Fredericton and Halifax, the new flight is of marginal advantage. It will, however, make an evening return from Montreal possible by jet to Fredericton and the connection on to Chatham.

The issue of reliability is closely associated with frequency. More frequent flights make service more reliable in that a trip, even if delayed by a flight disruption, can still be completed by the next flight or a rerouting. At a spoke point with limited frequency, the air carrier must establish a high degree of reliability to gain the confidence of the market; 95% is generally considered reliable. A review of Air Atlantic experience over the past winter, October 1990 to April 1991, showed reliability of 96%. This was despite the theoretical usability with the current navigation aids of only 90%.

As to aircraft type, it is generally conceded that passengers would prefer a jet to a turbo prop, especially for flights over one hour. However, the fact is that the Dash 8 has become the standard for regional services in Atlantic Canada with only larger points like Moncton and Fredericton receiving some jet flights to supplement the Dash 8's. However, the Dash 8, with stand-up headroom, flight attendant, galley and lavatory is much preferable to 19 seat turboprops without these service features that serve regional points in many other markets. As long as the Dash 8 is the standard, Chatham is not at a competitive disadvantage relative to competition at Charlo and Bathurst.

In summary, Chatham air service is reasonably comparable in fares and aircraft type but at a disadvantage in terms of destinations and frequency.

B. ANALYSIS

The analysis of the scheduled air service opportunity first requires developing an in-depth understanding of the Miramichi travel market in order to detail the scope of the opportunity. Secondly, the optimum feasible means to serve the market requires examining air carrier service patterns.

Overall statistics were reported in Section II. The published Origin-Destination statistics are given in Exhibit V-3. The results of a ticket sample from area travel agents is illustrated in Exhibit V-4, which shows less than half of Miramichi originating traffic is currently utilizing Chatham Airport.

Accurate cargo statistics are not available since 1987 when EPA, as a regional carrier, was required to report them. Cargo traffic peaked in 1979 at 217 tonnes. Only half this level today would give a daily average (six days a week) cargo market of 750 lbs, the typical cargo capacity (after baggage) of a Dash 8 flight.

Exhibit V-3. Origin-Destination Published Statistics

	1985	1986	1987	1988	1989	1990
Transborder						
Other Cities	680	1,110	920	860	490	880
Domestic						
Montreal	6,730	12,190	11,890	10.840	5,780	5,750
Toronto	3,580	6,620	8,190	7,840	6,320	5,120
Other	3,270	4,080	4,940	5,310	4,000	3,650
Portions of Intl.	830	1,280	1,110	1,080	680	1,010
Sub-total	14,410	24,170	26,130	25,070	16,780	15,530
Total O.D.	15,090	25,280	27,050	25,930	17,270	16,410
Enplaned/ Deplaned	15,917	20,210	22,031	22,500	17,816	19,200

* Enplaned/deplaned should always be greater than origin-destination totals, the difference being connecting and stopover passengers. In these years there was reportedly a double counting error in the O-D that inflated the total but the proportions should be correct.

Source: Statistics Canada.

Unfortunately, the published statistics are limited in detail, dated, subject to various anomalies and, most important, they report airport of origin not the origin point where the traveller departed by surface to the airport of flight. A further complicating factor is the introduction of Air Nova service at Bathurst in 1989. Prior to this time, Bathurst passengers were served by Chatham or Charlo. The current analysis must therefore focus on the Miramichi market without considering the element of Bathurst traffic that may be in the statistics prior to 1988.

To obtain more detail on the true origin market, the travel agents of Newcastle and Chatham provided a sample of over 600 tickets sold between August 1990 (after Intair left the market) to May 1991. This sample shows how much of the Miramichi market actually uses airports other than Chatham. By relating the Chatham originating tickets to the up-to-date enplaned-deplaned records kept by the airport, specific markets can be measured. Exhibit V-4 gives the distribution of airport of origin for Miramichi originating travel.

Exhibit V-4. Airport of Origin

	Tickets	%
Chatham	256	41.9%
Moncton	169	27.7%
Halifax	43	7.0%
Fredericton	36	5.9%
Bathurst	24	3.9%
U.S. Airports	31	5.1%
Other	52	8.5%
Total	611	100%

In the first seven months of 1991, Air Atlantic enplaned/deplaned 6926 passengers. Projecting for twelve months and considering that there was a 41.9% share of the market using Chatham airport, then the total current market potential would be 28,269 passengers. Based on studies of other airports, it must be recognized that there may always be some leakage of traffic from spoke points. For example, Moncton still enjoys two direct non stop jets per day to/from Toronto with Air Canada. (This may change in the future as Air Canada retires its DC9 fleet.) Therefore a target market is set at about 75% of the potential market, or 21,500 passengers for Chatham. This is an initial conservative target that only captures 75% of the Northumberland County market (population 52,981). It may be possible through further service improvements and aggressive marketing to capture some traffic from Gloucester County/Bathurst (population 87,473) or from Kent County (31,496).

An examination of destinations and geography indicates that the most important extra-provincial hub gateways are Montreal,[5] Halifax and Boston (re U.S. traffic). The destinations from the ticket sample were

5 Montreal as a desirable gateway illustrates the anomalies in the statistics. Table V-3 indicates that Montreal is a larger market than Toronto in all years except 1989. The ticket sample shows in fact that Toronto is a larger market. Toronto accounted for 187 of the 611 sampled tickets, over 30% of the Miramichi originating market. However, of the 256 tickets originating from Chatham Airport, only 82 were to Toronto, a 44% market share. Montreal with 98 tickets, 16% of the market, had 76 originate from Chatham, a 78% market share. But Montreal is still the preferred gateway in order to connect to Ottawa, at 41 tickets or 7%, the Miramichi's 3rd ranked destination.

sorted by these gateways as destinations plus traffic that would most likely transit these gateways to their beyond destinations. The target traffic by gateway is then as shown in Exhibit V-5.

Exhibit V-5. Current Traffic by Gateway

Gateway	Destination	Beyond	Total	Per Day
Montreal	3,678	12,695	16,373	52.5
Boston	283	2,829	3,112	10.0
Halifax	354	1,662	2,016	6.5
Total	**4,315**	**17,186**	**21,501**	**69.0**

The daily averages in Exhibit V-5 are based on six days a week service. If Air Atlantic/Chatham Airport were capturing the target market, they would be enplaning about 35 passengers daily. A viable air service would need to board 20 to 22 passengers (55-60% load factor) for a Dash 8 service. Thus even Montreal can not support twice daily service. In the past it has been supported by "co-terminal" service with Charlo, a similar size market where a combined 100 per day E/D market (50 boardings) does support twice daily service. The Boston and Halifax routes are less than necessary for even once a day service However, they are still significant volumes of traffic and important destinations for Chatham to have service to in the promotion of regional economic development.

The most immediate air service objective would be to restore twice daily service to the Montreal gateway, with convenient connections to Ottawa and the Toronto hub. Eastbound service to Halifax (and connections to points beyond) would only be feasible as a connecting service or with intermediate stop(s) or as an extension. While the current air market to Halifax is limited, there should be an opportunity to build this air market by capturing highway traffic to air. The convenience of twice daily service would help to do this. Links to U.S. services can be made via Montreal but a link at Boston would also help with free trade initiatives and tourism development.

C. STRATEGY

The analysis has determined the market opportunity to be marketed to an air carrier. To be competitive, the carrier chosen must have a major carrier code share, joint fares, an integrated interline schedule for service to points beyond the hub gateways, etc. This requirement limits the choices to Air Nova or Air Atlantic. In the ideal world, an airport would seek competitive services by both carriers, however, the Miramichi market is only large enough to support one regional carrier. Air Nova serves north east New Brunswick at Bathurst while Air Atlantic serves Charlo and Chatham. Air Nova would need to be persuaded to give up Bathurst as they would not incur the cost of an additional station at Chatham to compete with established Air Atlantic for a small market. Air Nova reports that they have no reason to not serve Chatham but rather that north east New Brunswick can not support multiple airports. They also report that they have received tremendous support from the community at Bathurst. The lack of interest by Air Nova means that Air Atlantic is the only practical choice. It also has the advantage of being majority owned by Atlantic interests which may allow it more flexibility. More importantly, there is a long standing close relationship with Air Atlantic and its predecessors.

Having chosen Air Atlantic as the most desirable air carrier partner, the next challenge is to develop a strategy to convince Air Atlantic to meet Chatham's air service objectives as developed in the above analysis. Demands and pleas may receive polite response but they are not likely to lead to more services than Air Atlantic's own boarding figures now justify. The MAC will need to approach Air Atlantic as a business partner. Air Atlantic can be expected to listen to a business proposition along the lines of cooperating with MAC's marketing program to win the Miramichi's traffic back to Chatham. When MAC can demonstrate results, Air Atlantic can be expected to be increasingly cooperative. This approach requires an incremental strategy. Air Atlantic may be willing to accede to small requests initially, then progressively improve services as MAC demonstrates it can deliver the traffic.

The next section proposes measures for MAC to deliver its end for the airport - air carrier partnership. For now, the final element of strategy is to focus on what changes in Air Atlantic's schedule will be least disruptive (easiest, lowest cost) to accommodate from Air Atlantic's viewpoint that will also do the most for the Miramichi's air

service needs. Two alternative approaches are detailed as examples. The first is based on a strategy of intraprovincial Dash 8 service to connect at larger centres to BAe146 jet services. The second approach uses Dash 8 service to extra-provincial hub points.

With its fall schedule, Air Atlantic has reintroduced BAe 146 jet service to New Brunswick with Fredericton/Saint John service to Montreal. Rather than fight for the second Dash 8 flight to Montreal to be reinstituted, MAC can ask for a connection to the jet at Fredericton. This could be accommodated fairly easily by stopping the Charlo-Fredericton flight at Chatham to connect with the BAe 146 out of Saint John at Fredericton on to Montreal in the morning. A similar evening return connection is already provided in the winter schedule. This would restore the twice daily service to Montreal.

The early morning Dash 8 flight could also provide Charlo/Chatham with a U.S. link by continuing to Saint John to connect with the morning Halifax - Saint John - Boston service. A reverse flight in the evening would connect from the afternoon Boston - Saint John - Halifax flight. This once a day U.S. service with one connection at Saint John would be a beginning to develop the U.S. market. It would also meet most of the market need where 90% of the U.S. market is travelling beyond Boston. A 9:40 am arrival in Boston gives ample time for onward connections (for example, based on Delta's September 1,1991 schedule, one departs at 1200 for New York, at 1150 to Miami, Atlanta or Los Angeles). Similarly, a 16:40 pm Boston departure permits travel from most U.S. points to connect at Boston. It would provide convenient scheduling for camp operators and tour organizers. Ultimately, under a new Canada-U.S. bilateral which is currently under negotiation, Air Atlantic would be able to use a BAe 146 jet on the Boston service which is not permitted under the current agreement.

A reasonably convenient connection at Fredericton to Halifax or even a continuation of the Charlo/Chatham Dash 8 flight through Fredericton and Saint John on to Halifax would finally make it possible to travel east from Charlo/Chatham albeit with either a connection or two stops. A return flight in the afternoon would pick-up the same connections. Intra-provincial service should also add to the passenger total by capturing highway traffic to air.

It would also be possible to provide a second frequency to the east by continuing the direct Montreal - Charlo/Chatham flight on in the afternoon to Halifax. Besides connections on through the Maritimes, this would also make the connection to KLM's twice weekly European service.

The impediment to stopping the current Dash 8 flight CP1450 from Charlo to Fredericton at Chatham is the very early departure from Charlo at 0630 in order to connect to the BAe 146 departing Fredericton at 0745. Much of Charlo's traffic is from the Gaspe requiring a one to two hour drive to Charlo; excessively early departures are not appreciated. There may, however, be advantages to Air Atlantic to originate the BAe 146 service from Halifax for the Nova Scotia - New Brunswick market which still allows convenient departure/arrival times for the Saint John and Fredericton markets. The later Dash 8 departure from Charlo still permits the stop at Chatham, connection at Fredericton to Montreal, and continuation to connect at Saint John to the Boston flight. This example illustrates how Chatham must think in a total system perspective when suggesting schedule improvements. The current and proposed schedule for this alternative is shown in Exhibit V-6.

Exhibit V-6. Air Atlantic Fall Schedule

1. BAe 146 Current			Proposed			Connections
Saint John	D	0700	HZ	D	0650	
Fredericton	A	0725	SJ	A	0730	
	D	0745		D	0750	
Montreal	A	0800	FC	A	0815	
	D	0845		D	0835	CL/CH
Saint John	A	1100	UL	A	0850	
	D	1120		D	0920	
Fredericton	A	1145	SJ	A	1135	
	D	1205		D	1155	
Ottawa	A	1235	FC	A	1220	
	D	1320		D	1240	
Fredericton	A	1545	OW	A	1310	
	D	1605		D	1340	
Fredericton	A	2005				
Saint John	A	1630	FC	A	1605	CH/CL
	D	1650		D	1625	→CH/CL

Exhibit V-6. Air Atlantic Fall Schedule (continued)

1. BAe 146

Current			Proposed			Connections
Montreal	A	1710	SJ	A	1650	
	D	1800		D	1710	
			UL	A	1730	
	D	2025		D	1800	
Saint John	A	2050	FC	A	2005	
				D	2025	→CH/CL
			SJ	A	2050	
				D	2110	
			HZ	A	2145	

2. Dash 8

Current			Proposed			Connections
Charlo	D	0630	CL	D	0650	
Fredericton	A	0710	CH	A	0710	
	D	0725		D	0730	
HZ	A	0810	FC	A	0800	
				D	0820	→UL 0835 - 0850, YZ 1050 - 1200
			SJ	A	0845	
				D	0905	→BOS 0905 - 0940
			HZ	A	0945	(2 has 25 min for
				D	1210	other use)
			SJ	A	1250	
				D	1310	BOS 1015 - 1240
			FC	A	1335	
				D	1355	
			CH	A	1425	
				D	1445	
			CL	A	1505	
				D	1525	
			FC	A	1605	→UL 1625 - 1730, YZ 1750 - 1906
				D	2025	(4 hours 20 min for other use)
			CH	A	2055	
				D	2115	
			CL	A	2140	

In formulating schedule proposals to meet its objectives, Chatham also needs to consider the competition. While not having the traffic base to match Moncton's level of service, the Chatham schedule should at least match, if not better, the competitive challenge of Air Nova and Bathurst. That schedule is shown in Exhibit V-7.

Sypher

Exhibit V-7. Bathurst Air Services

Westbound			Eastbound		
AC 1811			AC 1876		
Sydney	dep	0635	Montreal	dep	1235
Halifax	arr	0730	St. Leonard	arr	1450
	dep	0815		dep	1510
Moncton	arr	0850	*Bathurst	arr	1545
	dep	0910		dep	1605
*Bathurst	arr	0950	Fredericton	arr	1650
	dep	1010		dep	1720
St. Leonard	arr	1045	Halifax	arr	1805
	dep	1105		dep	1845
Montreal	arr	1135	Yarmouth	arr	1930
				dep	1950
			Boston	arr	2011
AC 1846			AC 1838		
Charlottetown	dep	1530	Montreal	dep	1925
Halifax	arr	1555	Bathurst	arr	2205
	dep	1625		dep	2225
Bathurst	arr	1725	Moncton	arr	2300
	dep	1745			
Montreal	arr	1845			
AC 1874 (Sat. only)			AC 1874 (Sat. only)		
Bathurst	dep	1225	Montreal	dep	0845
Montreal	arr	1325	Fredericton	arr	1105
				dep	1125
			Bathurst	arr	1205

Source: Air Canada Timetable October 27, 1991

Bathurst enjoys the twice daily service to/from Montreal. It also has twice daily service from Halifax but only once daily (evening) to Halifax. Connections are possible to Europe. There is also a three stop flight through to Boston although it arrives too late to make onward connections and the return flight would require over-nighting in Halifax. The intra-provincial service exists but has limited application. A Moncton resident can do a same day return to Bathurst but a Bathurst resident would require two over-nights in Moncton to do one day's business. There is a flight to Fredericton but none from Fredericton. Overall, however, the Bathurst schedule is much better than Air Atlantic's current offering at Chatham.

The second approach to improving services would be to have Air Atlantic dedicate a Dash 8 to the Chatham/Charlo market. Alternatively, this might be something to ask for after some initial success in delivering the market. Exhibit V-8 is a sample schedule for the dedicated aircraft approach. It provides the twice daily service to the Montreal gateway plus adds a daily service to Halifax that provides good connections to and from most Atlantic points with Air Atlantic's 1400 -1430 schedule bank. It also makes the afternoon Boston connection as an alternative to transiting Montreal for U.S. services. The dedicated aircraft also lends itself to promotional programs such as the "Miramichi Express" or Chatham's own "corporate Dash 8". Finally, it may lend itself to a closer cost/risk shared approach in developing air service as a partnership.

Exhibit V-8. Aircraft Dedicated to the Market

	Proposed		Connections
Chatham	dep	0730	
Charlo	arr	0755	
	dep	0810	
Montreal	arr	0900	to Toronto dep 1050 arr 1200
	dep	0930	from Toronto dep 0750 arr 0859
Charlo	arr	1200	to Ottawa dep 0920 arr 0950
	dep	1215	from Ottawa dep 0700 arr 0735
Chatham	arr	1240	
	dep	1255	
Halifax	arr	1400	to Boston dep 1425 arr 1600
	dep	1430	from Boston dep 1015 arr 1350
			to St. John's dep 1430 arr 1625
Chatham	arr	1545	from St. John's dep 0920 arr 1035
	dep	1600	
Charlo	arr	1625	
	dep	1640	
Montreal	arr	1730	to Toronto dep 1750 arr 1906
	dep	1830	from Toronto dep 1650 arr 1759
Charlo	arr	2100	to Ottawa dep 2220 arr 2255
	dep	2115	from Ottawa dep 1415 arr 1450
Chatham	arr	2140	

(connections based on October 27, 1991 Canadian schedule)

Sypher

These proposals are specific illustrations of how MAC can work with Air Atlantic at the schedule development stage to suggest modest changes on Air Atlantic's part that would still be significant enhancements to the quality of Miramichi's air services.

In summary, the strategy to developing the air services market is to choose an air carrier partner, Air Atlantic, and to work with them. The carrier's role will be to provide a reliable service with a schedule, aircraft and fares that are competitive in the north east New Brunswick market. MAC's challenge will be to provide the supporting services for a convenient, reliable service and to market heavily within the region to maximize patronage of the service.

D. ACTION REQUIRED

This section sets out the initiatives and on-going programs for MAC to restore a 20,000 plus passenger volume and to expand the market to 25,000 or more.

1. Establish a Partnership with Air Atlantic

The initial meeting is not as a community to demand immediate schedule changes but as a future business partner with a market opportunity to be developed jointly. MAC is seeking an agreement-in-principle, the willingness to cooperate with MAC's objectives with MAC also showing willingness to listen to and understand Air Atlantic needs and concerns. It would be futile to expand the schedule without first doing thorough preparation. For example, Air Atlantic put in the morning flight at the community's urging but it was too late to be printed in Canadian's summer schedule. Is it really a surprise that the loads were disappointing without this basic marketing tool? The result was that the flight was discontinued in the winter schedule. This ad hoc approach must be broken. Both the airline and the airport must carefully develop and integrate their marketing programs for a spring 1992 launch.

Beyond Air Atlantic's President, Neil Jackman, and its majority shareholder, Craig Dobbin, key personnel are: Sid Fry, Marketing (709-570-0798), Chris Ketchum, Scheduling (570-0874) and the Chatham Station Manager, Jon Quinton.

2. Align Interests With Charlo

The size of the Miramichi market is marginal to support the level of service desired. The fastest way to double the size of the market is to align Chatham's objectives with Charlo as a coterminal for north east New Brunswick. Charlo is Chatham's natural ally even as Bathurst is the competition. It would also be useful as marketing intelligence to find out what Bathurst has done so well to support Air Nova. An initial contact in forming this alliance is Mr. Herbert Arsenault, the Charlo Airport Manager (506-684-5507).

3. Organize the Miramichi Travel Industry

Many parties are involved in delivering the overall travel product including: taxis, hotels, tourism operators, car rentals, etc. MAC needs to identify all these participants and bring them formally together either in a new organization or under the auspices of the Tourism Association or the Chamber of Commerce. This group will be largely responsible for developing and implementing the detailed on-going promotional programs and in enhancing an integrated travel product centred on the Chatham airfield. MAC will need to provide continuing leadership and pressure in harnessing these community resources.

4. Implement a Public Awareness Program

Through the newspapers, radio, public relations, service club talks, schools and displays at events, ensure that the Miramichi Airport story gets out. The message is "It's our airport, let's use it". The Federal Aviation Administration's videotape training program "Airport Action Group" gives detailed directions towards mobilizing the entire community to support and identify with their airport.

5. Develop the Ground Transportation System

MAC is not only competing with other airports but with other modes of transportation, especially the car. MAC's markets, whether passengers, couriers, or air cargo shippers do not need an airport to airport service, they need a door to door service. While forming the alliance with Air Atlantic to provide the airport to airport service, MAC also needs to attend to the customer's door to the airport part of an integrated transportation product. An airport centred ground

transportation service provides three competitive advantages. First it makes the product easier to use, more convenient. Secondly, it can expand the catchment area. A person living 30 miles away, once in an automobile, may be just as likely to stay in their car all the way to Moncton, whereas a convenient shuttle service may attract even some of the Bathurst market (for example, where Chatham had an early morning departure and Bathurst did not). Finally, availability of ground transport makes using Chatham air services more reliable. If anything should go wrong with a Chatham flight, MAC has the capability to get the customer to the nearest alternate airport. While there may be a small risk of a delay, a Chatham airport user can have a high degree of confidence that they will be able to complete their trip.

A system may be developed through existing operators or as a new venture. It may be licensed by MAC or MAC may be an active partner. Whatever form it ultimately takes, the objective is to make it more convenient to use the Miramichi Airport. Further information on establishing a public ground transportation system may be obtained from Mr. Doug Johnson of the Department of Transportation in Fredericton.

6. Arrange Supporting Services

As a business partner to Air Atlantic, MAC needs to determine means by which it can support and facilitate Air Atlantic's operations. One example would be to arrange for overnight hangar storage, particularly for winter months. This would encourage Air Atlantic to overnight an aircraft at Chatham and also increase the reliability and comfort of services by having a warm aircraft and avoiding delays and costs of de-icing. Air Atlantic now maintains dedicated terminal staff, a considerable expense. MAC also keeps dedicated security staff. Either MAC can contract with Air Atlantic for security and uniform services or Air Atlantic can contract with MAC for passenger handling service. Either way there will be an economy for Air Atlantic to facilitate their operations at Chatham. MAC could also contract to provide services for the car rental concessions to save them staff costs while making revenue for MAC. These are examples; the idea is for MAC to take a leadership role in helping all parties involved in delivering the travel product to be more efficient.

7. Undertake Market Research

In developing an on-going marketing program for MAC and its travel partners to implement, it is essential to have good market intelligence. Simply sharing and combining the collective information of the travel partners will provide initial information and insight into needs; for example, best departure times, ground transport needs, etc. There should also be a program of ongoing data collection. This would include periodic surveys of departing passengers. The most critical need, however, is to seek information on the market that is not using Chatham airport to discover deficiencies in the travel product or simply lack of awareness. Two ways to do this would be through survey of travel agent customers that buy tickets originating from other airports or by survey of hotel guests that arrive by rental car. Finally, MAC needs to seek and track information about the competition. What does Bathurst do to support Air Nova? Track Bathurst and Moncton schedules and fares to find where the Chatham product is deficient or has advantages that can be featured in promotions. Developing air services is not a one time implementation project. Once the initial organization is done, it is a continuous process.

8. Seek Out Incremental Traffic

There are a number of incremental business opportunities that appear to have potential to increase the viability of scheduled services at Chatham. There is a small but significant air cargo market. Who are the shippers/receivers, how is the traffic being handled now and what is necessary to win it back? Is there a niche for regular aquaculture shipments? Another example is the fishing tourism market. There are major promotional events like the Northeast Outdoor Show and the Outdoor Writers Show in Worster, Mass. where Air Nova has been a participant but Air Atlantic has not. Should MAC fill this gap? Is there enough market to justify charter flights that give incremental utilization and revenue to the air carrier. Through the ongoing marketing and research programs, further opportunities are bound to come to light. There may even be a revenue opportunity to MAC acting as Air Atlantic's agent in some cases.

Through the organization discussed in Task 5 and other business groups, look for traffic opportunities in charters (fishing camps) and goods (aquaculture) that can enhance Air Atlantic's revenue from the Miramichi market.

9. Measure Success

In carrying out the above eight part program, MAC also needs to measure before and after results. This is important to ensure that limited resources are applied to get the maximum return. Hard data on achievements is also useful leverage in negotiating for further improvements.

10. Resource Requirements

For most of the above program, the major resource requirement will be in time and effort. Even much of this will be contributed by the local travel partners and by Air Atlantic. These parties will also contribute to the dollar costs of specific programs from their own promotional budgets commensurate with their benefits. However, MAC also needs a basic promotional budget to provide the secretariat function as well as its share and seed money for particular initiatives. This would be in the order of $100,000 for the first year and $50,000 as an ongoing budget.

The one exception will be the ground transportation setup if a new operation is necessary. It will require its own separate feasibility study, but capital support for suitable vehicles and working capital support for the first year or two operating loss would be necessary. Both of these needs could run a further $200,000 although this could be on a loan basis.

In terms of timing, it is apparent that there is a great deal of work to be done. The first quarter of 1992 will be required for organization and planning. Implementation will focus on the second quarter with service improvements being introduced in the April 1992 summer schedule.

VI BASED AIR CARRIERS

A. DESCRIPTION

Increased traffic through improved air services will generate economic benefits in new spending and visitation as well as the indirect benefits in transportation and communication supporting overall Miramichi development. However, attracting air carriers to establish their base at Chatham brings with it direct jobs and population. Already, Norfolk Aerial Services moving their winter base from Fredericton brings 5 to 10 jobs and new residents. If Forest Protection Ltd. can be attracted to move from Dunphy, the summer seasonal jobs of pilots and support personnel will be in Chatham. Even Laurentide's seasonal training operation represents a seasonal new job.

For an air carrier to establish a base there must also be a market. Air carriers can be considered in two categories: transport and specialty. Transport carriers like Air Atlantic establish their bases at airports that are hub or major endpoints (e.g., Halifax or St. John's respectively) where aircraft can be serviced in the over-night quiet period and crews based. The possibility of overnighting an aircraft and crew and the station staff is the maximum feasible development at Chatham because this is all that the market for transportation services can justify. The only time a transportation services type air carrier can bring a market to the airport is when it utilizes the airport as a hub, like Charlotte, North Carolina.

Specialty carriers are more flexible. A lower cost out-lying airport can be attractive as long as it is reasonably convenient to specialty markets that can be served from the location.

The two types of specialty carriers of interest are simply larger examples of the two new operations already attracted to Chatham by its natural advantages; that is, aerial application and flight training.

The first prospect is Conair, Canada's premier aerial application carrier. While operating nationally. it also "makes" fire fighting aircraft through extensive modification of surplus aircraft, most notably, the turbo-firecat, a conversion of surplus military Tracker patrol aircraft. While headquartered in Abbotsford B.C. (near

Sypher

Vancouver), it has a base in Edmonton for supporting western and arctic contracts. Conair is interested in establishing a similar base, in concert with Atlantic interests, to service the Atlantic region.

The scope of a base would be about 1800 sq. metres of hangar space, 500 sq. m. for shops and stores and 120 sq. m. for offices. The base would represent an investment of $5.6M in equipment (six Firecats and two helicopters), $1.4M in facilities and 24 jobs.

In meetings with Conair management, the concept proposed is to start an Atlantic Canada company in which Conair would be a participant. The new company could merge FPL and possibly other New Brunswick operators. From the base market for aerial application services related to forestry protection, the new company would become a major player in Atlantic Canada specialty markets including FBO services, aircraft maintenance, air taxi, patrol services, training and so on. The eventual operation could well be double the initial development. With a Provincial commitment to move FPL to Chatham and Conair already interested in Chatham as a base, this is an excellent commercial development opportunity. The challenge will be simply how to ensure it comes to fruition and achieves its maximum potential.

The second prospect is Provincial Airlines Ltd. (PAL), with its head office in St. John's. PAL is a leading example of a diversified local services air carrier. It provides contract courier flights throughout the Atlantic region, scheduled services within Newfoundland, Labrador and to St. Pierre, and flight training (through a subsidiary) at St. John's, Halifax and Sydney. Their large Halifax base is a result of their purchase in 1989 of Eastern Flying Services. PAL has about 275 employees including 45 pilots.

Their Board has already given consideration to establishing a consolidated training centre for pilots and there has been discussion with the Nova Scotia government about supporting establishment of such a centre at Halifax. Flying training is not a strong business in 1991, but all economic forecasts point to large requirements later in the decade. The combination of new aircraft on order for delivery in the 1990's, the age distribution of commercial pilots that will cause a high rate of retirements, and fewer recruits coming out of the traditional sources of the military and general aviation, point to increased demand for professional (versus recreational) flight training.

This combination of factors will increase the demand for a new form of pilot training facility for full time in residence training from basics to copilot responsibilities in a regional airliner. A number of such institutions are already in place including the University of North Dakota and British Aerospace's school in Prestwick. A major part of Moncton Flight Centre's market is catering to an international clientele for this type of service. An internal ATAC review in 1988 forecast Canadian air carrier needs through the 1990's at 2500-3000 new pilots over a six year period. They proposed development of "Gold Seal" schools for advanced training of pilots to serve the airline industry. The Canadair consortium that won the Military Flight Training contract to be done at Southport Aerospace Centre in Manitoba intends to expand operations into the civil market in 1993. Chatham could also support such a centre for eastern Canada.

In Part One of this study, pilot training was not assessed as a high potential opportunity because of the current depressed demand and Moncton's strong position in the market. However, it became apparent in the consideration of carriers to establish a base that this will be a strong market once the world economy emerges from the current recession and because there are limits to MFC's ability to expand the scope of their operations at Moncton.

Attracting a carrier like Provincial Airlines to establish a base at Chatham for flight training also opens up the possibility of PAL adding other operations once established at Chatham. There would be potential for air courier or intra-provincial local scheduled service. While Chatham does not have strong markets in these areas to justify establishing such activities, a carrier like PAL, once established at Chatham for flight training, could find it a convenient base to operate from for serving the wider New Brunswick market.

B. ANALYSIS

The existence of markets in specialty air carrier operations and the need for a eastern Canadian centre has been established by the interest of specific carriers in developing these markets. The analysis of the based specialty air carriers opportunity in this study requires a determination of what is necessary to attract them to establish their bases at Chatham and how MAC can develop its product to meet their needs.

Sypher

In the case of Conair, the first requirement is to establish Chatham as the Maritime centre for aerial application. A relocation of FPL and Norfolk to Chatham is not a net gain for New Brunswick but it does establish Chatham as the base of the forest protection function, at least for New Brunswick. Establishing the Atlantic Canada aerial application specialist, as proposed by Conair, will require the cooperation of the Provincial government through DNR and FPL and a long term commitment (five years) for a base of business to meet New Brunswick's needs for forestry protection. The scope of operation may also require the potential business of other Atlantic Canada provinces. Under free trade in air services, the objective of current bilateral negotiations, there may be opportunity for expansion through contracts from New England States.

The second requirement, which is more under the control of MAC, is to ensure that Chatham is the most cost effective site for these companies to establish their bases. The cost of establishing a base would be reduced by availability of suitable buildings. Hangar 1 is likely to be declared surplus. While it needs a new roof, it is structurally sound and its availability for renovation would offer a much lower cost than construction of new facilities. The other factor under MAC's control is airport user charges. If MAC simply applies TC rates for rents, landing and fuel fees, it will not have any competitive advantage over other sites. As a Commission, however, MAC has the flexibility to act as a risk sharing partner in how it structures its prices. This is not to say that it should give away its product, but rather MAC can be flexible to take less in the short run to facilitate the establishment of bases because it will make more in the long run by having them at Chatham. There may even be an opportunity to expand the scope of Conair's service by contracting certain airport operations to them as an additional source of revenue.

In summary, the requirements to attract Conair are seen as:

- being the base of New Brunswick's forest protection service;
- the security of long term (5 year) contracts; and
- reasonable costs for buildings and charges.

Chatham was originally built for pilot training. It has good weather suitable for flight training under visual flight rules almost 80% of daylight hours (better than 1600 ft ceiling and 6 miles visibility). It has ample uncongested airspace with minimal interference from other

types of operations which is a major constraint at Moncton. There are a number of other features that could be readily developed. Accommodation and messing facilities exist on the DND base that could be leased. The Miramichi Community College (MCC) has had a major recent expansion for potential academic training needs. Much flight training is done in small aircraft susceptible to crosswinds but a portion of the old 16-34 runway could be readily reactivated for day VFR operations. An ILS would be a useful asset but training needs would be served by a class A or B installation and would not need the more expensive class C ILS. One bay of an alert hangar, suitably improved with an interior shell, could meet needs for aircraft maintenance for flight training.

The final requirement to establish an integrated professional pilot training centre at Chatham may be the need for Provincial support. Nova Scotia is reported to be interested in supporting Halifax. The Saskatchewan government had committed support to Regina in seeking contracted military flight training before Portage was designated as the site. New Brunswick may need to at least match such competitive support to entice PAL or another company to establish such a centre at Chatham.

In the course of the analysis, two additional prospects were identified to do flight training at Chatham. Laurentide, who this past summer had a seasonal training operation, owns its own airport at Cedars in the west end of Montreal. The owner, John Schonfeld, expressed interest in selling the airport for redevelopment of the land and reestablishing operations elsewhere; he would be interested in considering Chatham. The final prospect is the Moncton Flying Centre who expressed interest in operating at Chatham as a satellite of its main school in Moncton. The manager reported he would utilize Chatham now except for the landing fees applied.

In summary, the requirements to attract an established company to set up a major flight training operation would be:

- competitive provincial support; and

- availability of hangarage, classrooms, messing and accommodation; additional features such as a cross wind runway and ILS would be further competitive features.

C. STRATEGY

The strategy to attract Conair is to establish the Miramichi region as the forestry industry capital of Atlantic Canada. Between the Miramichi's forestry companies and the Community College's mandate in silvaculture training, Chatham airfield becomes the most logical point to also centre the aerial side of the forest industry.

New Brunswick can also work through the Maritime Provinces Joint Council of Premiers to have the Miramichi acknowledged as the Atlantic region's strategic centre for aerial application services and to encourage contracts for Conair from other provincial governments.

The strategy to attract PAL (or Laurentide or even Moncton Flight Centre) to establish a professional pilot training centre is to arrange the required supporting services so as to make Chatham the ideal (low cost, low risk) location for such an operation. Accommodation and messing may be arranged through DND; ground school facilities could be through DND or MCC. MAC can also take the initiative to bring Hangar 6 up to "approved maintenance organization" standards for lease to the operator. Aviation gasoline is a necessity. Letting the avgas service to the operator can be a further incentive. MAC can also take a risk-sharing approach to user charges; for example, by waiving fees on the first 2000 hours of operation but then recouping this concession by an escalating charge on additional hours as the operation matures. Additional facilitation measures will be coordination with DND training exercises and investigating opening the cross wind runway and obtaining ILS and other training aids.

D. ACTION REQUIRED

Effectively, the opportunity to attract operators to establish bases at Chatham is two sub opportunities in aerial application and flight training. However, the actions required in both cases are similar and involve dealing with the same parties. Therefore, one action plan covers both opportunities.

1. Use of DND Facilities

A number of the facilities required are still under the control of DND. These are Hangar 1 and/or 2, accommodation and messing services, and use of training facilities. DND cooperation is also necessary in sharing the airfield so as not to compromise the efficiency of the proposed operations.

2. Provincial and ACOA Support

The Province needs to buy into and support the choice of Miramichi's strategic niches. The implications of this support need to be clearly defined as well as the scope and limits of provincial support. ACOA contributions will also be necessary in financing the start up of these enterprises. MAC needs to determine the scope and alternative approaches for packaging this support.

3. Product Development

Beyond acquisition or use of certain DND facilities and services, MAC needs to determine the alternatives and costs to enhance the Chatham airfield product to serve the needs of these two users. These enhancements include development of alert hangar bays for lease, opening a cross wind runway, completing avgas provision and acquisition of other training aids such as ILS.

4. Be the Broker

MAC needs to take the initiative in getting the parties together and expediting negotiations to ensure these bases get established at Chatham. MAC's role is to ensure the congruence of interests of the parties while taking all possible measures to facilitate and improve the attractiveness of Chatham as a base of these operations.

5. Incremental Markets

There are additional supplemental markets for specialty carriers that MAC can further investigate in fisheries and environmental needs. Contacts are: Environment-Carolyn Rose, Head of Conservation and Protection(Moncton); Fisheries-Ron Manderson, manager flight services, Fisheries and Oceans, Moncton; Morris Bernier, Fisheries, Fredericton; and Reg McIntyre, Fruits de la Mer LaBranche.

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VII AIRPORT FIRE FIGHTER TRAINING CENTRE

A. DESCRIPTION

Airport personnel of various trades have traditionally been trained on the job. This has also been the practice for airport firefighters, however, the training practices have come under increasing criticism for the environmental effects of hot drill training. Airport firefighters, now known as emergency response services (ERS), do not have enough actual incident experience to maintain proficiency. This has to be done through training. Large quantities of fuel are set on fire around a simulated fuselage section within a fire training area (FTA) and the airport firefighters train by putting it out. This activity is done frequently (monthly) at individual airports. At the current time, only Transport Canada airports provide ERS, consistent with ICAO recommended practices. To minimize the environmental impact of "hot drill" training exercises, unleaded motor fuel is used (reduced air emissions) and FTA's are bermed with impermeable clay bases (minimize area of soil contamination and run-off to ground and surface water).

The 13 Atlantic Region airports of Transport Canada (TC) in the 1989/90 fiscal year held 470 "hot drill" exercises to maintain the proficiency of 176 firefighters. Over 750,000l of fuel was burned with an average cost of training materials (fuel, foam, dry chemical) of $3,760 per firefighter. Exhibit VII-1 reports the overall training costs for materials as now incurred by Transport Canada. Not only is training very expensive, but TC has recently had its training programs curtailed in several respects by the environmental impact concerns. With initiatives like the Green Plan, pressure for environmental controls will increase. TC so far has responded by cutting back training while instituting measures to improve training effectiveness to maintain overall proficiency. It has adopted a new standard for FTA's requiring a double membrane system to trap pollutants for recovery and treatment; one is now being tested in Yarmouth. TC is facing a massive cost to upgrade FTA's at all airports and to recover and treat exercise effluents.

Exhibit VII-1. Materials and Cost Associated with Hot Drill Training 1989/90

	MFA'S	ATLANTIC	QUEBEC	ONTARIO	CENTRAL	WESTERN	PACIFIC	AVERAGE
NO. OF FIRES	994	470	539	238	324	681	338	3,582
NO. OF FIREFIGHTERS	253	176	83	89	144	148	148	1,041
SAMPLE SIZE	6	13	9	12	18	16	16	92
NO. OF FIRES/SITE *	124	39	77	26	18	43	23	42
UNLEADED FUEL L	1,432,987	755,975	366,696	225,047	556719	488,470	474,237	4,300,131
AMOUNT/FR	5,664	4,295	4,418	2,529	3,866	3,300	3,204	4,131
COST	$792,441.81	$418,054.18	$202,782.89	$124,450.99	$307,865.61	$270,123.91	$262,253.06	$2,377,972.44
COST/FIRE	$797.23	$889.48	$376.22	$527.33	$950.20	$396.66	$775.90	$663.87
COST/FR	$3,132.18	$2,375.31	$2,443.17	$1,398.33	$2,137.96	$1,825.16	$1,771.98	$2,284.32
AVERAGE FIRE SIZE L	1,442	1,608	680	954	1,718	717	1,403	1,200
AFFF L	154,566	54,018	19,548	29,746	125154	42,523	41,000	466,553
AMOUNT/FR	611	307	236	334	869	287	277	448
COST	$386,415.00	$135,040.00	$48,870.00	$74,365.00	$312,885.00	$106,307.50	$102,500.00	$1,166,382.50
COST/FIRE	$388.75	$287.32	$90.67	$315.11	$965.69	$156.10	$303.25	$325.82
COST/FR	$1,527.33	$767.27	$586.80	$835.56	$2,172.81	$718.29	$692.57	$1,120.44
DRY CHEMICALS KGS	149,338	53,815	23,858	36,837	18997	29,388	34,302	345,535
AMOUNT/FR	590	306	287	414	132	192	232	332
COST	$301,662.76	$108,706.30	$48,193.16	$74,410.74	$38,373.94	$57,342.75	$69,290.04	$697,979.69
COST/FIRE	$303.48	$231.29	$89.41	$315.30	$118.44	$84.20	$205.00	$194.86
COST/FR	$1,192.34	$617.65	$580.64	$836.08	$266.49	$397.45	$468.18	$670.49
TOTAL COST	$1,480,519.57	$661,800.48	$299,846.05	$273,226.73	$659,124.55	$433,774.16	$434,043.10	$4,242,334.83
TOTAL COST/FIRE	$1,489.46	$1,408.09	$556.30	$1,157.74	$2,034.34	$636.97	$1,284.15	$1,184.35
TOTAL COST/FR	$5,851.86	$3,760.23	$3,612.60	$3,069.96	$4,577.25	$2,930.91	$2,932.72	$4,075.25

* THE FOLLOWING SITES DID NOT PERFORM HOT FIRE DRILLS
CHARLO, ST-HUBERT, VAL D'OR, PEMBROKE, TIMMINS, AND WIARTON.

A 1990 TC study identified emerging technology in "high tech pit" FTA's. Developed for U.S. Navy shipboard firefighting training, the technology uses computer controlled, propane fuelled simulators for firefighter training. While offering many benefits environmentally and in improved safety and training effectiveness, these simulators are expensive (in the order of $5 million). The study predicted that all hot drill training would need to be centralized at two or three locations by the mid 1990's. Chatham is an excellent prospective site for an Atlantic Region, if not eastern Canada, firefighter training facility.

Adding to the potential demand for training services is a new TC ERS policy that will require ERS at all airports with scheduled passenger services (e.g., Bathurst). This will greatly increase the number of personnel requiring ab initio, recurrent (once or twice a year) and refresher training (five year cycle, TC now does this at Stephenville). DND also has a number of specialized firefighting training needs (e.g. for aircraft now done at Borden, Ontario) as do many companies in the utilities and energy industries.

B. ANALYSIS

The Miramichi Community College (MCC) already offers a specialized firefighting program in propane as part of its wider protective service programs. The Chatham fire department operates an extensive training facility which does hot drill training for many N.B. municipalities as well as specialized training for N.B. Power, the RCMP and penitentiaries services. They have also identified a need for shipboard fire training. Airport firefighting would be a natural fit with these activities. Finally, DNR in forestry firefighting, both on the ground and from the air, does not presently have centralized training. All of these needs suggest a major opportunity for the Miramichi region as a whole in all types of specialized firefighting training.

In addition to the excellent facilities and base of expertise already in the community, the airport has facilities which could also be utilized. The ammunition depot area of CFB Chatham has been identified as potentially surplus. The complex has two buildings that would be suitable for office, classrooms and shops while the two garages could house equipment and the bunkers would be useful for materials storage. Thus the core of an airport firefighting facility may already exist.

The largest market is TC firefighters. Interviews of ERS officials in Moncton and Ottawa revealed their problem in moving towards more centralized training. Despite the high cost of materials and FTA upgrades, centralized training requires overtime dollars and back-up person years which they do not have. Thus they are forced to continue decentralized hot drill training where firefighters can take training during regular shift schedules. Neither do they have an adequate capital budget to develop the high tech pit training areas. It was indicated that availability of a facility would receive close consideration. Transport Canada is now in a "passive" mode on these

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issues, but the soon to be released Dryden inquiry may contain recommendations that expedite action. By being the first to acquire the new firefighting technology, Chatham may preempt consideration of other sites. Once in the business of specialized airport trades training, there are additional opportunities to be pursued. Transport Canada also indicated a need for professional driver training for which Chatham has extensive paved areas. This would fit with another MCC mandated specialty in heavy equipment operation. Another field closely allied to the MCC's expertise is training for airport security personnel where MCC has the core protective services training mandate. All these people coming to Chatham for specialized training will also be a traffic boon to the scheduled air services. Another key market not to be neglected is DND's training needs. DND now trains its airport firefighters at Borden, Ontario but this school does not have the scope of training aids being proposed for Chatham. Also complementing the wider Miramichi opportunity would be DND's needs for the proposed shipboard firefighting training.

C. STRATEGY

The ERS personnel training should be an addition to an overall Miramichi strategic niche in all forms of firefighter training. Thus MAC would work together with MCC, Chatham Fire department, and DNR to further establish the Miramichi's position as the premier fire training centre for Atlantic Canada. An airport firefighter training program (and fire vehicle operation) would be developed as one element of the overall niche. As TC is ready to move sooner (by the Dryden report) or later (as the simulator technology is proven), Chatham will emerge as the automatic and obvious choice for locating Atlantic region ERS training. In the interim, approval of the training program by TC would allow offering services to municipal airports to meet the requirements of the new ERS policy.

One option is to start with the shipboard program. These simulators already exist and are proven. By being the first centre to acquire the technology, Chatham would establish a base of expertise that again makes Chatham the only logical location for a later aircraft firefighting simulator. It may be possible to economize by developing a facility for use in both shipboard and airport firefighting applications. This would further strengthen Chatham's competitive advantage.

D. ACTION REQUIRED

1. Organize a Miramichi Task Force

MAC will get together with the MCC and Chatham Fire Department as partners in providing integrated firefighter training programs. Roles, responsibilities and work sharing will be coordinated for maximum effect. Contacts are Tim Hoban at MCC (778-6000) and Edward Duplessie at the Chatham Fire Department's Morrison Cove facility (778-1230).

2. Market Research

Each of the target markets will be further investigated to precisely define their training requirements. Some of the initial contacts are David Ingersoll at DNR (1-453-2614), Bernard Valois at TC (613-990-3708), and Major Gaeten Perron at DND (613-992-4099). The Canadian Coast Guard College at Sydney would have information on shipboard requirements.

3. Product Development

Based on the findings of the market research, an overall master plan can be developed for the Miramichi Fire College with the airport facilities and program being an integral part.

4. Acquire High Tech Simulator

A key to the strategy is gaining the technological advantage. Acquiring a high tech simulator of the type described above, whether for aircraft or ships, gives the Chatham centre a head start on cornering this substantial market.

5. Use DND

There are two potential uses for DND in this strategy. First, access to existing DND facilities for accommodation, messing and training would be important adjuncts to this strategic niche. Secondly, DND itself could be the anchor tenant customer because it has many specialized fire training needs (both ships and aircraft). There is also the opportunity of political leverage. A commitment of all DND fire

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training to Chatham could be a quid pro quo for DND transferring operation of the base or to replace the Low Level Air Defence (LLAD) unit if it is moved to Alberta. At this issue level, a potentially useful contact is Andre Scott, Chief of Staff to the Minister of Defense (996-4450).

VIII AERO ENGINE REPAIR AND OVERHAUL

A. DESCRIPTION

One of the key facilities transferred from DND is the aero engine test cell. The market analysis identified this as a unique competitive feature in attracting a firm to do aero engine repair and overhaul work at Chatham. This is because a test cell could be half the cost of establishing a plant. The world aviation fleet of jet transport aircraft is forecast to double over the next 10 to 15 years, promising a continuing and growing market demand. A major engine repair and overhaul operation would involve a large capital investment in a plant and would sustain in the order of 100 to 150 high quality jobs. One example is the well known Pratt and Whitney Canada PT6 turbo prop engine of which there are 12,373 units in service with 5000 operators worldwide. There are currently (July 1991) 654 turboprop commuter aircraft on order and Pratt & Whitney, whose Canadian subsidiary has the world product mandate for turboprop engines, has a 66% market share of the engine orders for these aircraft.

B. ANALYSIS

The analysis began by identifying contacts for the principle aero engine manufacturers. These are listed in Exhibit VIII-1. These could be used to determine the extent of their overhaul business and to identify which additional companies were approved by them to repair their products and also additional product leads in niches such as APU's (auxiliary power units) and engine accessories. A wide variety of industry practice was found. Some companies (eg. Allison) do no R&O work; others such as Lycoming do all their own engines and others (eg. Rolls Royce and GE) have a mix of their own R&O shops and approved third party shops.

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Exhibit VIII-1. Aero Engine Company Contacts

- Alison Gas Turbine (division of General Motors): contact Director Product Support, J. Leach, 317-230-2000 (Indianapolis)
- Garrett (division of Bendix who are now in Summerside, a subsidiary of Allied Signal Aerospace): contact Manager Public Relations, Neil Cleere, 602-231-1000 (Phoenix)
- General Electric Aircraft Engines: contact Senior Vice President, Brian H. Rowe, 513-243-2000 (Cincinnati); in Canada, contact John Hawkes, 416-858-5678
- Orenda (division of Hawker Siddley): contact Director Marketing, M. Hinds, 416-677-3250
- Pratt and Whitney (division of United Technologies): contact Vice President Public Affairs, Laurence Churchill, 203-565-4321 (Connecticut); in Canada, Executive Vice President, Gilles Ouiment, 514-677-9411
- Rolls Royce Canada: contact Manager Business Development, W. F. Burton, 514-631-3541
- Sochata-Snecma: U.S. Contact, President, Jean Claude Malroux, 202-223-4001 (Washington)
- Textron Lycoming (division of Turbo Systems Inc.): contact Director Engine Overhaul, Joseph Bales, 203-385-2000 (Connecticut)

Continuing analytic research, however, revealed that aero engine repair and overhaul can no longer be considered a high potential opportunity for Chatham. This is because there is a rapidly emerging surplus of capacity in the industry.

- GE recently opened a new major U.S. overhaul facility at Suffolk;
- Rolls Royce Canada added 55,000 sq. ft. overhaul plant expansion at a cost of $9 million in Lachine, Quebec that included an $11M test cell for the RB211 engine that powers many of today's wide body aircraft;
- Pratt and Whitney had a 16,000 sq. ft. overhaul expansion in St. Hubert, Quebec including a $12M engine accessory repair and overhaul centre;

- Orenda (and others) will have new capacity freed up by declining military markets;

- Atlantic Turbine Ltd. is a new company established at Summerside as part of a repair and overhaul complex and it should dominate any Atlantic Canada market in Pratt and Whitney turboprop engine work including PT6 engines;

- Pratt and Whitney announced of a new plant in Lethbridge, Alberta for turbine assembly and testing; the scope of this plant is 78,000 sq.ft. at a cost of $140M creating 170 jobs with an expansion potential to 250,000 sq.ft. and 500 jobs, all built around a helicopter engine niche; this project received $50M provincial and $12M federal assistance; and

- evolving engine technology (e.g., modular components) is actually reducing the long term market for overhaul despite a greater number of units.

The Chatham test cell was also evaluated at this time by SYPHER's aeronautical engineering specialist whose opinions were confirmed by the GE interview. The instrumentation associated with a test cell, which was removed from the cell at Chatham, is more than 50% of the cost of a functioning cell. Thus its relative value as an inducement to attract an aero engine repair firm is reduced.

However, the analysis found other areas of emerging aerospace opportunities. Projects like the Lethbridge facility have huge pay-offs but they take years of persistent work to develop. The Lethbridge case demonstrates what is possible and suggests that Chatham should develop a strategy towards ultimately attracting such a project. By way of example, four potential opportunity areas can be referenced.

The interview with GE identified their interest for an overhaul plant for non-aero turbine engines used in pipeline and marine applications; there are over 100 such large units in operation in Canada alone. Several will be involved in the Hibernia project. The principle types are the LM2500 used in marine applications and the LM1600 used in pipelines. RPV's (remotely piloted vehicles) will be a growth industry with civil applications (e.g., utility line patrol) emerging for this military technology. Currently, a fundamental constraint on their development is the difficulty in finding airspace for flight testing. Could Chatham have a strategic advantage here

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through use of the military ranges? Canadair has just received the launch order from France and Quebec for CL215T turbo water bombers. With its other projects, does it have enough capacity at its Montreal plants? Might at consider a CL215 turbo conversion facility (for older piston powered water bombers) at Chatham, particularly if Chatham becomes established as an aerial application centre, or could the new Conair initiated company compete for such business. Another recent development is the announced relocation of Piper Aircraft to Canada because of the liability cost issues in the U.S. Might Chatham be a candidate for assembly of light aircraft for a U.S. manufacturer? The example of robotic technology for aircraft refinishing has also been identified.

In conclusion, while the specific prospect of aero engine overhaul is not a high potential opportunity because it has already been developed by Summerside and Lethbridge, there are other promising prospects in the aerospace sector. It is necessary to set up the means to identify and develop one of these into a major opportunity for Chatham on the scale of the Lethbridge project.

C. STRATEGY

As the Chatham airport establishes a viable market base through improved air services, aerial application, flight training and firefighting training, it becomes a stronger candidate for opportunities in the aerospace industry. However, while the pay-off in economic development is large, these projects are long term propositions that can take years of cultivation.

The challenge is how best to identify, track and follow-up on these aerospace related prospects. In the Piper example, since the Globe and Mail report, there are now 140 communities vying for their plant. Chatham needs to identify, track and cultivate niche opportunities long before they go public. Like the Lethbridge example, by the time the public hears about it, the deal should be done.

The suggested strategy is an alliance with the Miramichi Region Development Corporation. The MAC will designate an aero industrial park sector within the airfield (e.g., the area between the terminal and the tower) and enter an agreement with the MRDC for the marketing and management of this area. This would be a third regional facility along with the Newcastle and Chatham Industrial Parks.

MAC will retain the responsibility to scan the industry for prospects. This can be done through association memberships and subscriptions to major trade publications. This is passive rather than active marketing; MRDC would take the lead in active sales work after MAC identifies, and both organizations jointly qualify, prospects.

D. ACTION REQUIRED

1. Planning

Meet with the MRDC to agree on the general terms of roles and responsibilities. Develop an action plan for ongoing, coordinated action. For example, MRDC is likely better positioned to maintain contact with the provincial and federal aid agencies and keep up to date on various programs and their criteria.

2. Establish the Aero Industrial Park

Lay out the land area in lots, survey, determine the availability and means of providing services. Develop suitable descriptive and promotional material.

3. Set-up Industry Scanning

Through memberships and subscriptions, establish the sources, procedures and criteria for an on-going scan process. Over time, MAC will build up a network of contacts that will continually improve the quality of intelligence collected. MAC should also tap into other networks at the federal (e.g., Michael Edwards, ACOA) and provincial level (e.g., Terry King, Economic Development) that can be extremely helpful.

4. Maintain Momentum

It is critical to long term success to set up a regular meeting schedule and procedures to ensure momentum is maintained in development of prospects into opportunities.

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IX ASSOCIATED ACTIONS

Before undertaking this commercial prospects study, it was impractical for the Miramichi Airport Commission to address other product and planning issues. The first task in business is for the organization to define what business it is in, and what are its particular niche opportunities in the marketplace. This has now been done. There remain two further tasks that MAC must carry out to prepare itself to exploit its opportunities both for the improved viability of the airport itself and for its wider contribution to the community's economic development. These tasks relate respectively to the development of its product to best meet the needs of its chosen markets and to the development of itself as a business oriented organization.

Having identified and chosen its markets, the MAC is now in position to carry out the further essential planning work that it needs in place in order to implement the development of its markets. The work needed falls into two broad categories.

A. LAND USE AND FACILITY PLANNING

The land, facilities and services of the Chatham airfield are MAC's product. The use of MAC lands must be zoned and identified in order to guide long term orderly development in the provision of the markets' needs. There are a number of facility questions to be addressed. These include:

1. Runways

No immediate need has been identified to operate 10,000 ft. of runway. However, can it be arranged to save operating expenses by maintaining a regular 6,000 ft. runway where the option is kept open to make 10,000 ft. available on an as required basis such as for a National Guard exercise. How can a portion of the 16 - 34 cross wind runway be reactivated for flight training at least cost?

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2. Nav Aids

TC's airport usability analysis indicates 89.63% availability with the current navigation aids. However, 95% is a generally accepted requirement in order to support reliable scheduled air services. Air Atlantic reported only 14 flight disruptions over the past October to April seven month winter period, which works out to actually achieving about 96% reliability of service. Obtaining a precision approach system (ILS or MLS) would improve theoretical usability to the order to 98% but it may be difficult to justify the expense. There may be more affordable approaches such as a used VOR or an ODALS light system that would be more satisfactory.

These are only examples; there are sure to be numerous land use, facility and operations questions to be addressed.

B. BUSINESS PLANNING

It is recommended that the MAC Board prepare a five year business plan to clearly set out its plans and intentions. A business plan is just as critical as the facilities plan in guiding the development of the airport. The business plan, starting with the mission statement, is the best means for the MAC to maintain its focus and to most appropriately set its priorities. A business plan is also a necessity in order to secure long term financing commitments. The principle components of a business plan include:

1. A Mission Statement

This briefly sets out MAC's definition of the business it is in, its articulation of its raison d'etre and the scope of its mandate. It is the touchstone in maintaining focus and in choosing priorities. It communicates to all others with whom MAC does business what it is about.

2. The Marketing Program

This component describes MAC's markets and how it will reach and develop them, with target volumes of business. The input of the Commercial Prospects Study will largely complete this item. Each year's operations plan will include more detailed marketing actions.

3. A Business Development Program

This element outlines how MAC will stimulate and facilitate the economic development at the airfield to service the target markets, for example, for supporting enterprises and their services such as FBO and ground transportation services.

4. Organization Structure

This part of the plan defines how the Board and airport staff will operate, their roles and responsibilities and also how MAC will work with related organizations.

5. The Financial Plan

The financial plan gives historical and projected financial flows and how the organization is (to be) financed. It plays an important role as a prospectus by identifying the resources required, the sources, use and returns to be achieved. It is the basis on which public and private investors can be positively encouraged to participate in MAC's plans towards achieving its objectives.

The Business Plan demonstrates to the rest of the world that MAC is clear about its mission, knows where it wants to go and is realistic about how to get there.

X AN OVERALL COMMERCIAL DEVELOPMENT STRATEGY

The Miramichi Airport Commission is now an airport operator. In order to succeed with its commercial opportunities it will need to evolve into a marketing and economic development organization as well. In short, it will need to be a business unit that operates its business in a business-like manner.

The first strategic question is how to organize itself to carry out its additional functions. If it simply assigns new marketing responsibilities to its staff manager, it runs the risk of having long term marketing suffer from the demands of short term immediate operating issues. An alternative approach would be to appoint a part time Executive Director (a Board member if available) to take the lead in marketing and business development initiatives and to keep up the momentum. Activities would still be closely coordinated with and supported by the airport manager and his staff.

As this study was initiated, it was anticipated that the airfield could be the source of new economic development niches for the Miramichi, that it would take the lead role. The detailed analysis of the selected prospects has confirmed potential, particularly in the based specialty carrier and firefighting niches, however, these can best be achieved by supporting broader Miramichi strategic niches in forestry and firefighting (with overlap in the area of forest firefighting) with MAC taking a supporting role. This does not make MAC's role secondary or passive. On the contrary, MAC must be a proactive initiator and a full partner in these ventures. It simply means that as a strategy, MAC will pursue its objectives through strategic alliances with other stakeholders. More specifically:

- for scheduled air services, with Air Atlantic and Charlo;
- for based specialty carriers, with MCC, the province and the forest industry;
- for firefighting, with the MCC, province and Chatham Fire Department; and
- for on-going aerospace industrial development, with the MRDC.

The final strategic issue is the relationship with DND. It will always be a partnership and, since taking on the airfield operation, MAC has moved up from a tenant role (operating the terminal only) to a junior partner role but that is still sensitive to DND. MAC must figuratively change places with DND to take control of the development agenda. This does not need to be confrontational. It should be accomplished simply by taking the initiative. MAC's advantage is that it will now know where it is going whereas DND has not yet decided, at least with respect to CFB Chatham, where it wishes to be.

In summary, the recommended strategy for MAC is to:

- adopt a business focus in a wider mandate;
- organize for dedicated attention to the marketing/business development function;
- initiate strategic alliances for the pursuit of airfield opportunities; and
- gain control of the development agenda vis-a-vis DND.

XI CONCLUSIONS AND RECOMMENDATIONS

The first phase market analysis identified four high potential commercial prospects out of a comprehensive framework of 28 aeronautical areas. These were:

- the enhancement of scheduled air services;
- attraction of local and specialty air carriers to establish permanent bases;
- development of an airport firefighting training centre; and
- establishment of an aircraft engine repair and overhaul facility.

The second phase planning has confirmed the potential in all but the latter opportunity, because of the reduced perceived value of the test cell as a feature and due to the recent capacity expansion of competitors. However, various other prospects in the aerospace sector were identified and a process proposed for their systematic and on-going pursuit.

In addition, flight training, previously rated only a medium prospect due to the Moncton mandate and competition, has been up-graded to a high potential opportunity within the category of based specialty carriers. This is because Moncton Flight Centre appears unable to increase its scope of operation, at least at Moncton, and due to the identification of two prospective companies interested in a new Atlantic region operation to meet the increased demands predicted by the mid-1990's.

In order to develop the verified opportunities, SYPHER's key recommendations to the Miramichi Airport Commission are to:

- Build market development on improved scheduled air services for an expanded market, on being a base for aerial application and professional flight training air carriers, on specialized airport firefighter and vehicle operation training, all while continuing to scan for aerospace niche opportunities.

- Adopt a business approach with a wider scope mandate.

- Organize for senior level, dedicated marketing leadership.

- Undertake Land Use and Facility Planning and develop a Business Plan based on serving the identified markets.
- Begin implementation of the identified specific steps for each opportunity.
- Forge the strategic alliances with partners who are stakeholders in the same objectives.
- Take a leadership role vis-a-vis the relationship with DND.
- Through these actions, establish the Miramichi Regional Airport as a viable business operation with major economic benefits for the Miramichi.

APPENDIX A

LIST OF PERSONS INTERVIEWED

LIST OF PERSONS INTERVIEWED

Col. G. Zypchen	DND
Mr. Walley Bishop	Office of Economic Adjustment, DOD
Rupert Bernard	Mayor Chatham, Chairman Miramichi Airport Commission
Jamie Patterson	Patterson Aviation Services
Anna MacDonald	Miramichi Region Tourism Association
Lt. Col. Ellison	Base Commander, CFB Chatham
Greg McNuty	Local Employment Assistance and Development Inc.
John Tarr	Norfolk Aerial Spraying
Kevin King	Laurentide Aviation
Albert Heckel	Miramichi Community College
Daryl Black	Miramichi Region Development Corporation
Cynthia Riordon	Community Futures
Thane Fritz	Regional Planning Commission
Ray Stinson	Repap Mill
Pat Savoie	CEIC
Jim Doyle	Member Airport Commission
Sid Fry	Air Atlantic
Chris Ketchum	Air Atlantic
Jon Quinton	Air Atlantic
David Ingersoll	Department of Natural Resources
Bernard McGayle	J.D. Irving Ltd. Flight Operations
Steve Sharp	Moncton Flight Centre
Robert Brook	Viking Helicopters
Roy Walsh	President Greater Miramichi Chamber of Commerce
Barry Madu	Conair
John Hawkes	GE Aero Engines
George Fury	Provincial Airlines

APPENDIX B

MEMORANDUM OF AGREEMENT
(DND LICENSE TO MIRAMICHI AIRPORT COMMISSION)

MEMORANDUM OF AGREEMENT made in duplicate

BETWEEN

Her Majesty the Queen in right of Canada, represented herein by the Minister of National Defence and hereinafter referred to as the "Licensor"

AND

Miramichi Airport Commission Ltd., a body duly incorporated under the Laws of the Province of New Brunswick, with Head Office at the Town of Newcastle in the County of Northumberland and Province of New Brunswick, hereinafter referred to as the "Licensee"and which can be reached at P.O. Box 122, Newcastle, N.B. E1V 3M3

WHEREAS the Licensor is the owner of a defence establishment known as the Canadian Forces Base Chatham (hereinafter called the "base") in the Province of New Brunswick;

WHEREAS the Licensee has requested permission to occupy and to use commencing in September 1990 an irregular-shaped parcel of land containing 346.0 hectares as shown on Drawing No. L-C141-0200/1-101 annexed hereto as Annex "A" the following infrastructure: Buildings H6 ORA Hangar, 174 Runway Lighting, 167 New Engine Test Cell, 104 ORA Administration Building and the following Navigation Aids: The Non-Directional Beacon (Bldg. 85), the Tactical Air Navigation System (TACAN) (Bldg.107) and the Position Approach Path Indicator (PAPI).

NOW THEREFORE THIS AGREEMENT WITNESSES, that in consideration of and subject to the terms and conditions, covenants and provisos hereinafter contained, the Licensor, to the extent of such power and authority as legally exists and no further, hereby grants leave and licence, subject to termination as hereinafter provided, to the Licensee to occupy and use an irregular-shape parcel of land being part of the base containing approximately 346.0 hectares as shown in red on Drawing No. L-C141-0200/1-101, the following infrastructure: Buildings H6 ORA Hangar, 174 Runway Lighting, 167 New Engine Test Cell, 104 ORA Administration Building and the following Navigation Aids: The Non-Directional Beacon, (Bldg. 85) the TACAN (Bldg. 107) and the PAPI, (hereinafter collectively called the "Property") for a period of two (2) years commencing on the first day of September 1990;

THE LICENSEE HEREBY AGREES AS FOLLOWS:

1. to pay to the Licensor by way of acknowledgement that the aforesaid leave and licence exist only by leave of the Licensor and not by any right of the Licensee, the sum of one dollar ($1.00) per annum in advance subject to annual review and adjustment,

2. to pay all taxes, rates, charges or assessments which may be levied in respect of present Leave and License;

3. to abide by all applicable orders, instructions and regulations issued by or under the authority of the Licensor;

4. not to assign or transfer, nor purport to assign or transfer, either in whole or in part, the lease and license hereby granted without the prior consent in writing of the Licensor;

5. to assume full responsibility for the care of the property at all time including all risk of loss, damage or injury to the Licensee, its servants, agents, employees, invitees or Licensees;

6. to indemnify and save harmless Her Majesty, Her officers, servants, agents, employees and members of Her Majesty's forces, Her and their heirs, executors, administrators, successors and assigns, from and against all injury, damage, actions, causes of action, suits, claims and demands of whatsoever nature which may result of, may be brought or made by reason of any act or default of the Licensee, servants, agents, employees, invitees, or Licensees, or on account of any damage to the property of the Licensee or in connection with any loss, damage or injury in any manner based upon, arising out of or incidental to the exercise or purported exercise by the Licensee of the Leave and License granted herein;

7. to compensate the Licensor, Her officers, servants, agents and employees for any injury or damage to the property of the Licensor caused by or directly or indirectly attributable to the exercise by the Licensee of the [illegible] conferred;

8. to comply with all applicable federal, provincial and municipal laws, bylaws and regulations;

9. to assume and pay for all utility costs associated with the exercice of this Leave and License, including the cost of the provision of metering devices wherever installed;

10. not to erect any other structure, including buildings or fences on the property without the prior consent in writing of the Base Construction Engineering Officer (BCEO).

11. to assume responsibility and cost for operating and maintaining lands, buildings, infrastructure and navigation - aids described herein including runway repairs, grass cutting, snow removal, garbage collection and generally all building maintenance; the buildings and grounds must be maintained to a standard which would ensure structural integrity, functional usability and provide a safe operating environment;

12. to be responsible for crash fire fighting and rescue services (Note: This issue is still being negotiated between DND and Transport Canada. CFB Chatham will provide services reviewed on a monthly basis until the issue is settled);

13. to provide access 24 hours a day, 7 days a week to eleven hard stands as part of the track plan, the three break up firing ranges, the Laser Tracking Range and the two Laser Bore Sighting Ranges all described in Annex B and C for LLAD training and maintenance action in accordance with an operating MOU between Transport Canada, the Licensee and CFB Chatham;

14. to provide access and use 24 hours a day, 7 days a week to those buildings and other structures located within the boundary of this Letting Agreement, but for which the Licensee has no responsibility for use by or under authority of the Licensor;

THE LICENSOR COVENANTS AND AGREES WITH THE LICENSEE

subject to the security and traffic control requirements of the Licensor, to afford the officers, servants, agents, employees, contractors, invitees or licensees of the Licensee such access to the Base, including ingress and egress and passage over and upon the same, as may reasonably be required for the purposes of the Licensee pursuant to this Agreement.

IT IS MUTUALLY COVENANTED AND AGREED BY AND BETWEEN THE PARTIES HERETO THAT:

a) either party may terminate this Agreement by giving to the other party not less than sixty (60) days notice in writing of intention to terminate, such notice will be deemed to have been effectively given if sent by prepaid registered post to and addressed, in the case of the Licensor, to the Deputy Minister, Department of National Defense, Ottawa, Ont. K1A 0K2 and in the case of the Licensee to the address first mentioned herein, and such notice shall be deemed to have been received on the first business day following the mailing thereof;

b) notwithstanding anything contained in or arising by virtue of this Agreement, if the Minister of National Defence is of the opinion that circumstances exist which constitute an unforeseen emergency and that by reason of such circumstances, all or any part of the Base which the Licensee is permitted to occupy by virtue of this Agreement, is required for public purposes, the Minister of National Defence may give to the Licensee a Notice of Termination which notice shall state that the Leave and Licence granted by this Agreement shall terminate upon the expiration of a period of time following the date such notice is given, which period of time shall be stated in the notice and shall not be longer than 60 days next following the giving of such notice, but shall otherwise be of such length as the Minister of National Defence shall in his sole discretion decide upon and, upon the giving of such notice and the expiration of such period the leave and license granted by this Agreement shall terminate and the Licensee shall not be entitled to recover any compensation from the Licensor or any other person by reason of such termination.

c) nothing herein contained shall be deemend to set up a tenancy by implication or otherwise.

d) nothing herein contained shall be deemed to constitute a decision, ruling or direction by the Minister of National Defence on the manner in which a civilian airport should be operated and the Licensee hereby assumes all responsibility in recuring from the proper authorities, including the Minister of Transport of Canada, the permits, Licences or their documentation required for the operation of a civilian airport;

e) no member of the House of Commons shall be admitted to any share or part of this Agreement or to any benefit to arise therefrom. (Parliament of Canada Act R.S.C. 1985, C. P-1 Sub-Section 38 (1)).

IN WITNESS WHEREOF this Agreement has been executed by the Director General Properties and Utilities, Department of National Defence on behalf of the Minister of National Defence representing Her Majesty the Queen in right of Canada and by Miramichi Airport Commission Ltd. by the affixing hereto of its corporate seal attested by the hands of its officers duly authorized in that behalf, this 2nd day of October, 1980.

SIGNED, SEALED AND DELIVERED on behalf of Her Majesty the Queen in right of Canada, in the presence of:

Witness

DEPARTMENT OF NATIONAL DEFENCE

Director General
Properties and Utilities

SIGNED, SEALED AND DELIVERED in the presence of:

Witness

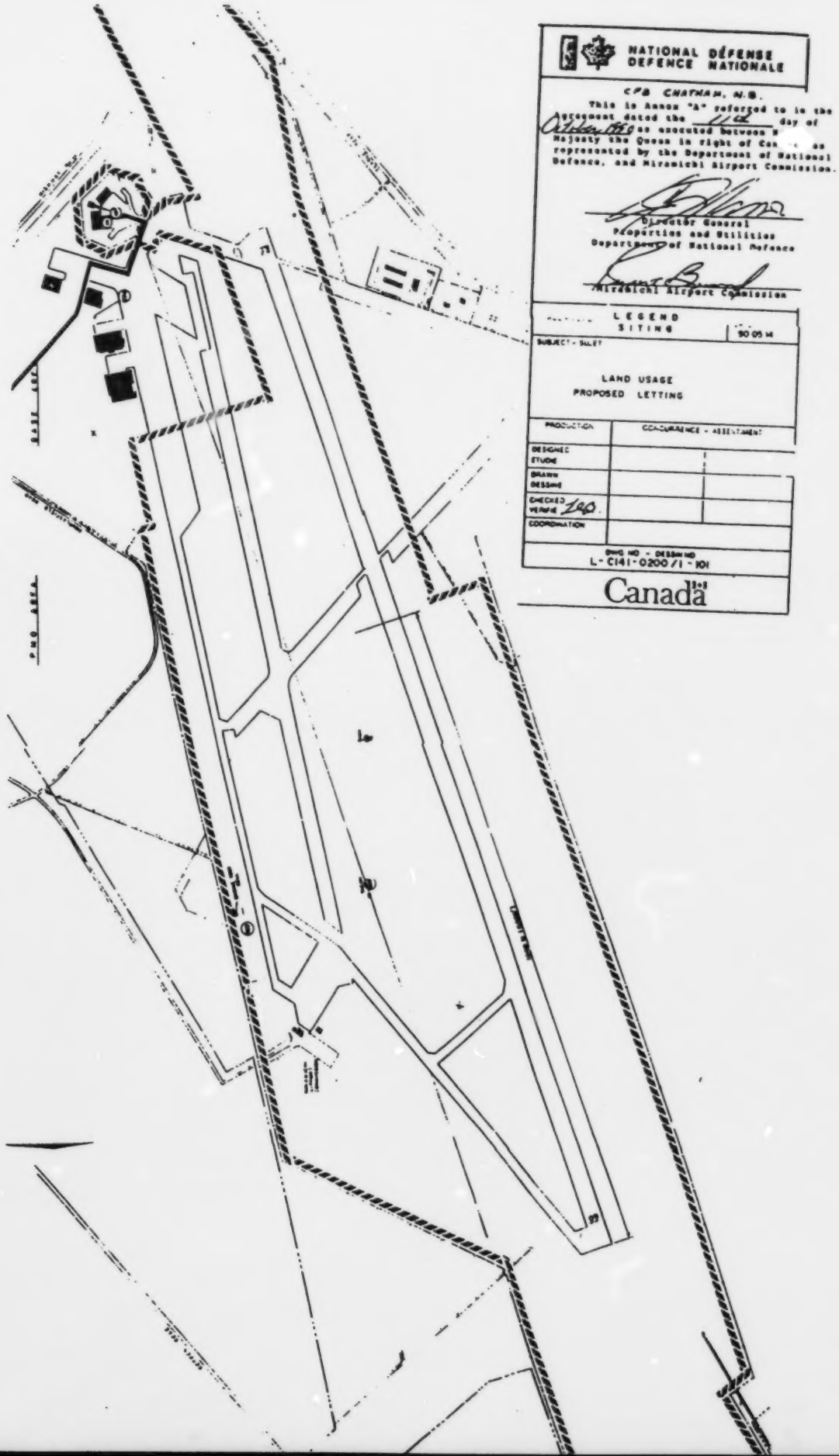
MIRAMICHI AIRPORT COMMISSION LTD.

President

Vice President

Secretary/Treasurer

Approved as to form and legality.
Judge Advocate General


NATIONAL DÉFENSE
DEFENCE NATIONALE
CFB CHATHAM, N.B.
This is Annex "A" referred to in the Agreement dated the 14th day of October, 1969 as executed between Her Majesty the Queen in right of Canada as represented by the Department of National Defence, and Miramichi Airport Commission.
Director General
Properties and Utilities
Department of National Defence
Miramichi Airport Commission
LEGEND
SITING
90.05 M
SUBJECT - SUJET
LAND USAGE
PROPOSED LETTING
PRODUCTION
COORDINATION - ASSENTIMENT
DESIGNED ETUDIE
DRAWN DESSINE
CHECKED VERIFIE
COORDINATION
DWG NO - DESSIN NO
L-C141-0200/1-101
Canada

APPENDIX C

AGREEMENT BETWEEN THE GOVERNMENT OF CANADA (DEPARTMENT OF TRANSPORT) AND THE MIRAMICHI AIRPORT COMMISSION

DUPLICATE
ORIGINAL
ORIGINALE

NO. 138434
NO

DEPARTMENT OF TRANSPORT
MINISTÈRE DES TRANSPORTS

AGREEMENT

BETWEEN

THE GOVERNMENT OF CANADA

AND

THE MIRAMICHI AIRPORT COMMISSION LTD.

Authority:	T.B. Minute 712467, 13 July, 1972
Date of Agreement:	September 7, 1990
Concerning:	Chatham Airport, New Brunswick
Description:	Financial Assistance re: Operation and Maintenance of Chatham Airport situated in the vicinity of Chatham in the Province of New Brunswick

138434

DEPARTMENTAL REFERENCE
RÉFÉRENCE DU MINISTÈRE

FILE NO. MK 5161-A344
DOSSIER NO

MEMORANDA
NOTES

DEFINITIONS

(1) The word "Airport" shall mean the lands described in Schedule "A" hereof.

(2) The word "Minister" shall mean the person holding the position, or acting in the capacity, of the Minister of Transport, for the time being, and shall include the Deputy Minister of Transport and those officials of the Department of Transport with delegated authority as applicable.

(3) The words "Her Majesty" shall mean the reigning Sovereign or the succes sors or assigns of the Sovereign and includes Her duly authorized repre sentatives.

(4) The word "contribution" shall mean a conditional payment for a specified purpose which is subject to being accounted for and audited pursuant to this Agreement, and which is made from a budgetary appropriation for which no goods or services are received.

(5) The words "advance payment" shall mean a payment, under the terms of this Agreement, that is made before the performance of that part of this Agree ment for which the payment is being made.

(6) The word "Recipient" shall mean the Party of the Second Part as above designated or described or the successors or assigns of the Party of the Second Part.

(7) The words "operating deficit" shall mean the difference between the greater of revenues earned in support of the Airport or the minimum revenue level as established by Transport Canada, and the expenditures incurred for the management, operation and maintenance of the Airport.

(8) The words "independent external accredited accountant" shall mean a person who is a licensed public accountant.

THIS CONTRIBUTION AGREEMENT made as of the latest date set opposite the signatures.

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, represented herein by the Minister of Transport (hereinafter referred to as "the Minister"),

OF THE FIRST PART;

- and -

The Miramichi Airport Commission Ltd.

(hereinafter called "the Recipient"), having its office at P.O. Box 355, in the Town of Chatham of the County of Northumberland, Province of New Brunswick.

OF THE SECOND PART.

WHEREAS the Recipient operates an airport situated at Chatham, N.B. and known as The Miramichi Airport Commission Ltd. as more fully shown in Schedule "A" (hereinafter referred to as "the Airport");

AND WHEREAS the Minister is willing to provide financial assistance to the Recipient in respect of the management, operation and maintenance of the Airport by way of a contribution to be payable in accordance with the terms and condi tions and for the period hereinafter set forth.

NOW THEREFORE the Parties agree as follows:

TERMS AND CONDITIONS

1.0 INTRODUCTION

1.1 The Recipient shall be The Miramichi Airport Commission Ltd.

1.2 The Atlantic Regional Director General Airports Group, Transport Canada is delegated to carry out on behalf of the Minister all actions of the Minister referred to in these terms and conditions.

1.3 Nothing herein contained shall obligate the Minister to make any payment under this Agreement unless and until the necessary funds have been voted by Parliament in that behalf.

2.0 PERIOD OF AGREEMENT

This Agreement shall come into effect on the 7th day of September, 1990 and shall terminate on the 7th day of September, 1995 unless sooner terminated in accordance with the provisions hereof. The maximum term permitted is five years.

3.0 PAYMENTS TERMS AND CONDITIONS

3.1 The Recipient shall receive a contribution up to the maximum amount authorized by the Minister to cover the operating deficit of the Airport. Such maximum amount shall be set out in an Annual Budget Approval Letter issued by the Minister and attached hereto as Appendix A.

3.2 The latest Annual Budget Approval Letter shall from time to time replace and supersede the previous such Letter as Appendix A.

3.3 The Recipient shall bear that portion of the operating deficit that is in excess of the amount authorized by the Minister in the Annual Budget Approval Letter as amended from time to time.

3.4 Payments shall not be made unless the Recipient has complied with all the requirements of this Agreement.

3.5 Payments shall be based on prudent cash management principles in that the amount of each advance shall be limited to the immediate cash requirements. The maximum amount that may be advanced to a recipient shall be determined according to the total amount of the contribution as follows:

Total Contribution Payments	Advance or
$ 1 to $249,999	Quarterly
$250,000 and over	Monthly

3.6 The Minister shall pay the contribution as a series of advances as follows:

(1) The Recipient shall provide quarterly or for such time period as directed by the Minister, to the Atlantic Regional Director General, Airports Group a cash-flow forecast showing in detail the cash requirement for the following quarter or for such time period as directed by the Minister.

(2) For the second and subsequent advances the Recipient shall provide in addition to the cash-flow forecast a performance report on the previous quarter or such time period as directed by the Minister showing a detailed listing of expenses and revenues and a statement of cash account. Based on the actual results of the previous quarter or such time period as directed by the Minister, the anticipated advance shall be subject to adjustment (upwards or downwards as the case may be).

(3) Within 30 days of receipt of the documentation referred to in (1) and (2) above, payment of the advance shall be made to the Recipient.

(4) The Minister has no obligation to pay the second or any subsequent advance unless the Recipient has provided the documentation referred to in (1) and (2) above.

(5) The Recipient shall on or before the 90 days after the end of the Recipient's fiscal year, deliver to the Minister a set of financial statements certified by an independent external accredited account ant, that will include an income statement, and a statement of changes in financial position for the management, operation and main tenance of the Airport, as a public airport, for the whole of the period or term of the Recipient's fiscal year covered by this Agree ment, together with such statements and certification as may be required by and to the satisfaction of the Minister. The Minister at his/her sole discretion may withhold any or all of the annual contri bution pending receipt of the financial statements.

(6) The final settlement of a contribution for a given calendar year shall be made only after the Minister is satisfied that the Recipient has complied with all the terms and conditions of this Agreement.

4.0 ALLOWABLE EXPENSES

4.1 Subject to the maximum amount authorized by the Minister, the contribution shall cover only those expenses which are directly related to the management, operation and day-to-day maintenance of the Airport as approved annually during budget negotiations between the Recipient and the Responsibility Centre Manager Atlantic Regional Director General, Airports Group.

4.2 Allowable expenses shall be those listed in Schedule B.

4.3 INELIGIBLE EXPENSES

(1) Expenses shall not include any expenditures incurred either prior to or following the period specified in Section 2.0 of this Agreement;

(2) Expenses shall not include any amount for expenses with respect to any structures, improvements and equipment not approved by the Minis ter; and

(3) Expenses shall not include depreciation with respect to any portions of structures, improvements and equipment or other assets which were paid out of grants in aid, subsidy and reimbursement or other assets which were paid out of grants in aid, subsidy and reimbursement from any federal or provincial department or agency.

5.0 REVENUES

5.1 Revenue accounts of the Recipient shall be credited by the Recipient with the amount of all fees, charges, rents, fines and concession revenues earned.

5.2 Revenue accounts of the Recipient shall be credited by the Recipient with all discounts, rebates, interest earned from advance payments made by the Minister, or any other recovery by the Recipient in respect of the operation and maintenance of the Airport.

5.3 The Recipient shall undertake to increase airport revenues and minimize airport expenses to the maximum extent practicable.

5.4 The Recipient shall earn a reasonable amount of interest from all positive cash account balances.

5.5 If the Recipient implements pricing practices that earn revenues less than would be obtained under Transport Canada revenue policies and practices, the amount of operating subsidy will be reduced accordingly.

6.0 ACCOUNTING RECORDS AND FINANCIAL REPORTS AND AUDIT

6.1 The Recipient shall maintain the funds provided as contribution advances in a separate account maintained for the Airport management, operation and maintenance and these funds shall be used only for this purpose. The Recipient shall at a minimum maintain separate ledger accounts for all revenues and expenses.

6.2 The Recipient shall keep records of operating costs and revenues for the Airport, such records to be kept in accordance with generally accepted accounting principles and to be kept separately from any other accounts and records of the Recipient.

6.3 The Recipient shall maintain complete records of accounts and follow such budgetary and financial control procedures as may be issued by the Minister.

6.4 The books and accounts and other records of the Recipient with respect to the management, operation and maintenance of the Airport and anything directly related to this Agreement shall be open for audit and inspection during business hours by the Minister, and the Minister may take copies and extracts therefrom.

7.0 DEBTS DUE TO THE CROWN

(1) Overpayments, unexpended balances, and disallowed expenses constitute debts due to the Crown, and the Recipient must repay all such over payments, unexpended balances, and disallowed expenses. The amount owing shall be immediately due and payable by the Recipient and may, at the Minister's discretion, in addition to any other remedies available, be set off against any future payments payable by the Minister hereunder.

(2) The rights of the Minister under subsection 7.0 (1) of this Agreement shall survive the termination of the Agreement.

8.0 BUDGETARY PROCESS

8.1 Subject to Section 8.2 of this Agreement, the Recipient shall not less than 90 days before the date of commencement of the Recipient's upcoming fiscal year forming part of the duration of this Agreement, submit to the Minister a budget proposal in the form prescribed by the Minister, setting out, in all necessary detail, an estimate of all revenue that will be derived from, all expenses that will be incurred in, and the new cost of operating the Airport for the ensuring twelve (12) month period forming part of the duration of this Agreement.

8.2 The Minister may, at his/her sole discretion, but in any case not later than one hundred and eighty (180) days before the date on which this Agree ment terminates, give written notice to the recipient of his/her intention to negotiate a new contribution agreement for the twelve (12) month period next following the date on which this Agreement terminates or for such other period as in the Minister's sole discretion might be considered advisable; in such event, the Recipient shall submit to the Minister, at least ninety (90) days prior to the termination of this Agreement, its budget proposal in the form and content set out in Section 8.1 herein above, for the twelve (12) month period immediately following the date of termination of this Agreement.

9.0 CANCELLATION AND TERMINATION

9.1 If

(a) the Recipient defaults in the performance or observance of, or compliance with, any of the covenants, agreements or conditions here of, the Minister may by notice in writing require the Recipient to remedy such default within such time as may be fixed by the Minister in such notice, and if within the time so fixed the Recipient shall not have remedied such default to the satisfaction of the Minister, or

(b) the Recipient is convicted of any offence against the law, order or regulation of Canada or duly constituted authority thereof or the conditions of any license, or of being an accessory to any such offence, and if such offence is committed in connection with the management, operation or maintenance of the Airport, or

(c) no regularly scheduled air carrier service is obtained in connection with the operation of the Airport,

then the Minister may at his/her discretion terminate this Agreement by written notice given to the Recipient.

9.2 The Minister or the Recipient may terminate this Agreement at any time by giving 180 days' notice in writing of the intent to terminate.

10.0 ACCESS

The Minister shall, at all times and for all purposes, have full and free access to any and every part of the Airport.

11.0 CONDUCT OF BUSINESS

11.1 AIRPORT OPERATION AND MAINTENANCE

(1) The Recipient undertakes during the period specified in Section 2.0 of this Agreement, to manage, operate and maintain on a continuous basis as a certified public aerodrome, the lands and ancillary facilities described in Schedule "A" hereof.

(2) The Recipient shall ensure that all structures, improvements and equipment that are approved as eligible by the Minister, shall be used only with respect to the management, operation and maintenance of the Airport, unless specifically approved in advance by the Minister, and shall not be removed from the Airport at any time, except for the purpose of refuelling off-site or responding to any urgent request by a public authority for emergency services in accordance with the general Resource Requirements set out in Transport Canada Emergency Response Service Standards.

(3) With the exception of Acts and Regulations applying to any licensed/ certified public airport and subject to the limitations herein provided, the Recipient may manage, operate and maintain the Airport at its discretion.

11.2 FAILURE TO MANAGE, OPERATE AND MAINTAIN AIRPORT AND TO MEET TRANSPORT CANADA EMERGENCY RESPONSE SERVICE STANDARDS

(1) If the Recipient fails to manage, operate and maintain the Airport or to fulfill its commitment as set out in this Agreement, and in parti cular, if the Recipient fails to ensure that the monies allocated in the Annual Budget Approval Letter to meeting the Transport Canada Emergency Response Service Standards are indeed so used, the Minister shall, in addition to the other remedies of the Minister as set out in section 9.1 of this Agreement, have the right to reduce the contribution payable in an amount proportionate to the value of the services not provided. The determination of the value of the services not provided shall be at the sole discretion of the Manager.

(2) No contribution reduction will be effected by reason of any breach of this Agreement that, in the opinion of the Minister, was beyond the Recipient's control.

12.0 ASSIGNMENT

The Recipient shall not assign any part of this Agreement without the prior consent in writing of the Minister.

13.0 LIABILITY AND INDEMNITY

The Recipient shall defend, indemnify and save harmless the Minister from and against all claims, demands, losses, costs, damages, actions, suits or proceedings of any kind or nature, by whomsoever made, brought or prose cuted in any manner based upon, arising out of, related to occasioned by or attributable to any act, omission or default of the Recipient, its officers, servants, employees, agents, contractors or sub-contractors in carrying out or purporting to carry out any services or activities contem plated in this Agreement to be carried out by or at the initiative of the Recipient.

14.0 GENERAL

14.1 MEMBERS OF THE HOUSE OF COMMONS

No member of the House of Commons of Canada shall be admitted to any share or part of this Agreement or to any benefit to arise therefrom.

14.2 CONFLICT OF INTEREST

No former public office holder who is not in compliance with the post- employment provision of the Conflict of Interest and Post-Employment Code for Public Officer Holders shall derive a direct benefit from this Agree ment.

14.3 INTERPRETATION OF AUTHORITY

The Minister shall determine whether the terms and conditions of this Agreement have been performed and complied with, for the purpose of establishing the amount, if any, of the contribution payable to the Recipient hereunder.

14.4 WAIVER NEGATED

The failure of the Minister to require the fulfillment of the obligations, or to exercise any rights herein, shall not constitute a waiver, a renun ciation or a surrender of any rights of the Minister hereunder.

14.5 PRIOR NEGOTIATIONS SUPERSEDED

This Agreement and the Annual Budget Approval Letter constitute the entire Agreement between the Parties with respect to the subject matter hereof and supersede all previous negotiations and documents in relation thereto.

15.0 NOTICES

(1) Whenever in this Agreement it is required or permitted that notice or demand be given or served by either party of this Agreement to or on the other, such notice or demand will be in writing and will be validly given or sufficiently communicated if forwarded by registered mail, telegram or telex as follows:

To the Minister:

Atlantic Regional
Director General
Airports Group
P.O. Box 42
Moncton, N.B.
E1C 8K6

To the Recipient:

The Miramichi
Airport Commission
P.O. Box 428
Chatham, N.B.
E1N 3A8

(2) Such addresses may be changed from time to time by either party giving notice as above provided.

(3) Any such notice or demand shall be conclusively deemed to have been given or made on the day on which such notice or demand is delivered, telegraphed or telexed, or if mailed, on the fifth (5th) business day following the date of mailing, as the case may be.

16.0 OPTIONAL CLAUSES

Only to be included in agreements where Transport Canada does not own the airport lands.

16.1 RESERVATION OF BUILDING SITES

The Recipient shall, if required by the Minister, demise and lease to the Minister available land or building space on such terms as shall be mutually agreed upon between the Minister and the Recipient.

16.2 ACQUISITION OF TITLE BY HER MAJESTY

The Minister shall have the right of first refusal to acquire title to the Airport or any structure, improvement or equipment thereon or associated
therewith upon any proposed disposal or sale by the Recipient. Notwith standing the foregoing, the Minister is under no obligation to exercise this right of first refusal.

16.3 ACQUISITION OF LANDS BY THE RECIPIENT

(1) The Recipient, having acquired the land indicated on Drawing No. (hereinafter called "the Drawing") attached hereto as part of Schedule A and forming part hereof, shall operate such land as an airport in accordance with the provisions of the Aeronautics Act, being Chapter A-2 of the Revised Statutes of Canada, 1985 and amendments thereto, and regulations from time to time thereunder.

(2) The Recipient shall acquire the lands outlined in blue on the Drawing, if necessary, or easements for right-of-way, and prohibit the erection of structures thereon, and on such other lands or easements as may from time to time be required and agreed to by both the Minister and the Recipient.

APPENDIX A

(Annual Budget Approval Letter)

SCHEDULE A

(a legal description of properties maintained by the Recipient)

As depicted in National Defence Drawing No. L-C141-0200/1-101

SCHEDULE B

ALLOWABLE EXPENSES

The following items are considered allowable expenses and are eligible for funding subject to the amounts approved in the Annual Budget Approval Letter. Inclusion in this list does not necessarily result in automatic funding approval.

Salaries and Wages
Overtime
Allowances (Employee packages)
Employee Benefits
Travel
Relocation
Postage and Freight
Telephone and Telegraph
Advertising
Publication
Accounting Services
Auditing Services
Engineering Services
Legal Services
Scientific Services
Training
Health Services
Professional and Special Services
Insurance
Municipal Service Fees
Computer Services
Protection Services
Rental - Land
Rental - Buildings
Rental - Machinery and Equipment
Rental - Aircraft
Rental - Motor Vehicle
Rental - Computer
Rental - Office Equipment
Rental - Telecom Equipment
Rental - Other Equipment
Rental - Other
Purchased Repair - Bldgs. & Works
Purchased Repair - Equipment
Fuel
Public Utilities
Materials and Supplies
Office Material and Supplies
EDP Supplies
Depreciation (subject to subsections 4.3 (2) and (3))

IN WITNESS WHEREOF the parties hereto have executed these Presents on the day and year hereunder mentioned.

SIGNED AND DELIVERED in the presence of

At Moncton, N. B.
this 4th day
of October
19 90

S. T. Gyapo
Witness

for the **MINISTER OF TRANSPORT**

A/Regional Director General
Airports Group
Transport Canada

(Name and Title of Representative)

THE CORPORATE SEAL of

if required, was affixed hereto in the presence of its proper officers duly authorized.

MIRAMICHI AIRPORT COMMISSION LTD.

At Chatham, N. B.
this 26th. day
of September
1990

Witness

Witness

for the **RECIPIENT**

SCHEDULE B

ALLOWABLE EXPENSES

The following items are considered allowable expenses and are eligible for funding subject to the amounts approved in the Annual Budget Approval Letter. Inclusion in this list does not necessarily result in automatic funding approval.

Salaries and Wages
Overtime
Allowances (Employee packages)
Employee Benefits
Travel
Relocation
Postage and Freight
Telephone and Telegraph
Advertising
Publication
Accounting Services
Auditing Services
Engineering Services
Legal Services
Scientific Services
Training
Health Services
Professional and Special Services
Insurance
Municipal Service Fees
Computer Services
Protection Services
Rental - Land
Rental - Buildings
Rental - Machinery and Equipment
Rental - Aircraft
Rental - Motor Vehicle
Rental - Computer
Rental - Office Equipment
Rental - Telecom Equipment
Rental - Other Equipment
Rental - Other
Purchased Repair - Bldgs. & Works
Purchased Repair - Equipment
Fuel
Public Utilities
Materials and Supplies
Office Material and Supplies
EDP Supplies
Depreciation (subject to subsections 4.3 (2) and (3))

SCHEDULE A

(a legal description of properties maintained by the Recipient)

As depicted in National Defence Drawing No. L-C141-0200/1-101

APPENDIX D

LETTERS PATENT MIRAMICHI AIRPORT COMMISSION

Province of New Brunswick

LETTERS PATENT

INCORPORATING

"MIRAMICHI AIRPORT COMMISSION LTD."

Dated	6th, February, A.D.,		19	74	
Recorded	6th, February, A.D.,		19	74	
Lib.	U	Fol. 631	Ref. No.		74-146

Deputy Provincial Secretary

Omer Leger

BY THE HONOURABLE

Provincial Secretary

TO ALL TO WHOM THESE PRESENTS SHALL COME, or who the same may in anywise concern, GREETING:

WHEREAS, In and by the " COMPANIES ACT " (being Chapter 33 of the Revised Statutes, 1952), It is amongst other things in effect enacted, that the Provincial Secretary may, by Letters Patent, under his Seal of Office, grant a Charter to any number of persons not less than three, who having complied with the requirements of the Act, apply therefor, constituting such persons and others who thereafter become Shareholders or members (*as the case may be*) in the Company thereby created, a Body Corporate and Politic, for any of the purposes or objects to which the Legislative authority of the Legislature of New Brunswick extends, except the construction and working of Railways, the Business of Insurance other than as provided in PART II, the Management of Trades Unions, Friendly Societies, Building Societies, Trust Companies, Loan Companies, or other Associations of like character, upon the applicants therefor establishing to the satisfaction of the Provincial Secretary due compliance with the several conditions and terms in and by the said Act set forth and thereby made conditions precedent to the granting of such Charter.

AND WHEREAS, Paul B. Lordon, A.P. Tracy-Gould, barristers-at-law, and Margaret A. Mullin, stenographer, all of the Town of Newcastle, in the County of Northumberland and Province of New Brunswick, have made application for a Charter under the said Act constituting them and such others who may become shareholders in the said company, a body corporate and politic by the name of "MIRAMICHI AIRPORT COMMISSION LTD." for the purposes hereinafter mentioned, and have established the sufficiency of all the facts required to be established previous to the granting of such Letters Patent, and have filed in the Office of the Provincial Secretary all documents in connection with the provisions of the said Act.

NOW KNOW YE, that I, the said Omer Leger, Provincial Secretary of the said Province, under the provisions of the said Act, do, by these Letters Patent constitute the above named persons and all others who may become shareholders in the said company, a body corporate and politic by the name of "MIRAMICHI AIRPORT COMMISSION LTD." with all the rights and powers given by the said Act, and for the following purposes, namely;

(a) To take over and operate the Miramichi Municipal Airport Building and the appurtenances thereto belonging, situate at the Town of Chatham, in the County of Northumberland and Province of New Brunswick, with the consent of and subject to the rules and regulations of the Department of Transport of Canada;

(b) To establish and maintain lines or regular services of aircraft of all kinds and carry on the business of carriers of passengers and goods by air, and otherwise and to enter into contracts for the carriage of mails, passengers and goods by any means and in connection with any of the objects aforesaid;

(c) To carry on the business of warehousemen and storers of goods, wares and merchandise of every kind and description whatsoever;

(d) In connection with the business of the company to purchase, lease or otherwise, acquire lands, water privileges or rights or interest therein respectively together with any buildings or structures that may be on the said lands and to sell, lease, exchange, or otherwise deal with or

dispose of the whole or any portion of the lands and all or any of the buildings or structures erected thereon, and to take such security therefore as may be deemed necessary;

(e) To acquire and establish aerodromes, hangars, depots, sheds, airports, flying fields or flying stations for the storage, reception and use of aircraft and aerial conveyances of all kinds;

(f) To establish, maintain and conduct or to assist in the establishment, maintenance and conduct of any club, association or society formed for the purpose of advancing the study and practice of aviation, aerostation and aeronautics;

(g) To provide and maintain stations, waiting rooms, restrooms, food, refreshments, lunch counters and restaurants, for the accommodation of the employees and travelling public;

(h) To receive monies by way of grants, gifts, donations, solicitations or pledges and to use the same for carrying out the aims and purposes of the Company;

(i) To possess and exercise all or any of the

powers mentioned and set forth in Section 14 (1) of the Companies Act;

(j) To do all such other things as are incidental or conducive to the attainment of the above objects;

The shareholders of the Company may by resolution remove any director or directors or any officer or officers of the company before the expiration of his or their period of office and appoint another qualified person in his or their stead for the balance of his or their term, at any special general meeting of the shareholders of the Company, of which notice specifying the intention to pass such resolution shall have been given;

No By-Law of the Company shall be enacted, repealed or altered without the approval of a majority vote of at least two-thirds of the Directors of the said Company at a special general meeting held for that purpose and by a majority vote of at least two-thirds of the Shareholders of the Company at a meeting held to ratify the actions of the Directors;

THE HEAD OFFICE of the said Company within the Province of New Brunswick, shall be at the Town of CHATHAM, in the County of Northumberlnd.

THE PROVISIONAL DIRECTORS being, Paul B. Lordon, A. P. Tracy-Gould, and Margaret A. Mullin.

THE CAPITAL STOCK of the said Company shall be FIVE THOUSAND DOLLARS ($5,000) divided into FIVE HUNDRED (500) common shares of a par value of TEN DOLLARS ($10) each.

GIVEN under my hand and seal at FREDERICTON, the SIXTH day of FEBRUARY, A.D. 1974.

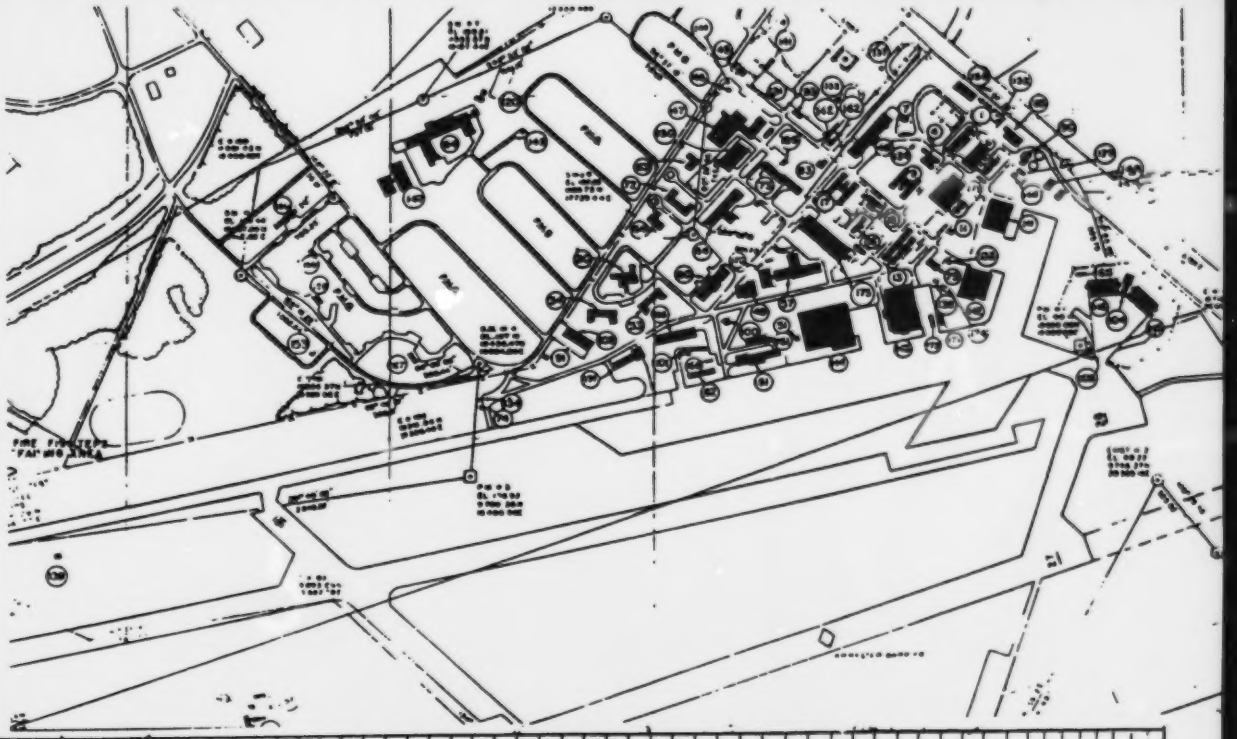
PROVINCIAL SECRETARY.

APPENDIX E

INVENTORY OF BUILDINGS

BUILDING LEGEND

NO	DESCRIPTION	SQ FT
H-1	SINGLE HANGAR	
H-2	" "	
H-3	DOUBLE "	
H-4	CONCRETE ARCH HANGAR	
H-5	ALERT HANGAR	
H-6	" "	
1	C E SHOPS & STORAGE	
6	SUPPLY	
7	25 YD RANGE	
9	OR QTRS	
11	CH TORCH	
12	BASE HEADQUARTERS	
15	SOCIAL CTR	
17	OR QTRS	
18	PASS AFCD [illegible]	
44	COMBINED MESS	
45	GUARD HOUSE	
46	SEWAGE LIFT	
47	DRILL & RECREATION HALL	
48	UNIT SUPPLY BLDG	
49	FIRE HALL	
50	OFFICERS MESS	
51	ARMAMENT STORAGE	
53	OFFICERS QTRS	
54	NCO'S & FEMALE QTRS	
55	C E BLDG	
57	4.5 DEFENCE ARTILLERY [illegible]	
60	TELECOM AVIONIC	
61	SECURITY & NUCLEAR DEFENCE B - [illegible]	
62	BASE OPERATIONS BLDG	
63	PROT CHAPEL	
64	RC CHAPEL	
65	CENTRAL HEATING PLANT	
66	BASE TRANSPORT	
72	CR QUARTERS	
73	BASE MEDICAL ART [illegible]	
74	NEW CONTROL TOWER	
75	GARAGE	
77	SEWAGE TREATMENT PLANT	
83	STAND-BY POWER PLANT	
84	D L McLAREN SCHOOL	
85	TELECOM TRANSMITTER BLDG	
90	WATER PUMPHOUSE NO 1	
91	" " NO 2	
93	LIBRARY	
99	POLSTER PUMP HOUSE (WATER)	
[illegible]	OXYGEN BLDG	
100	APU BUILDING	
102	CURLING RINK	
103	SAFETY EQPT WORKSHOP	
104	ALERT CREW QTRS	
105	CRA ACCESS CONTROL	
106	RATCON	
107	VACAN	
108	CELLOMETER	
109	TRANSMISSOMETER	



NO		
110	ARMAMENT BLDG TYPE "D"	
111	" "	
112	ARMAMENT WARD HOUSE	
113	L/M GARAGE & AMM STORAGE	
114	ARMAMENT BLDG TYPE "A"	
115	" " "	
116	" " "	
117	SAND STORAGE	
127	HEATING PLANT	
128	TENNIS COURT	
131	MAGAZINE	
134	EXPLOSIVES STORAGE	
135	FLAMMABLES STORAGE	
175	NAVIGATION BLDG	
29	CHECK HOUSE	
174	A.P.C.	
175	PM TRAILER	
132	PCL STORAGE	
133	M.P.E. STORAGE	
134	EXPLOSIVES RUNWAY HUNTING STORAGE	
171	LLAD TRAILER	
172	LLAD TRAILER	
137	POL STORAGE	
138	APU BLDG - RUNWAY LIGHTING	
139	VACANT	
140	ENGINE TEST CELL	
141	CAREX GARAGE	
142	DEFENCE CONSTRUCTION LTD	
144	BASE ACCESS CONTROL	
145	C.D.A.T. CENTRE	
146	GP STORAGE	
147	THE RT. HON. J.W. CRAIG JUNIOR HIGH SCHOOL	
148	C.E. STORAGE	
149	RATCON APU BLDG	
150	CANEY & SUPPLY	
151	MT GARAGE	
200	20B EXPLOSIVE STORAGE	
204	HEATING BLDG	
2004	" "	
153	LAUNDRY & STORAGE	
154	BUS STOP SHELTER	
155	CE STORAGE	
156	SUPPLY/CE WAREHOUSE	
158	C M P PIPE SHED	
159	A C/R GARAGE	
155	A C/R GARAGE	
159	A C/R GARAGE	
160	C/R GARAGE	
161	BARREL STORAGE	
162	POL OFFICE	
164	ETC ATTACHMENT [illegible]	
165	HEAVY EQUIPMENT TRAILER	
166	PANEL CONTROL TRAILER	
167	NEW ENGINE TEST CELL	
168	MARCONI RADAR TRAILER	
169	HF ANTENNA	
170	MONITOR TRAILER	

H-CM1-8410-201 MINIATURE SITE PLAN

TABLE 1

CFB CHATHAM BUILDING INVENTORY

BLDG NO	CONST DATE	BLDG CONDITION	GROSS AREA (M^2)	PRESENT USE	FUTURE USE	REMARKS
H1	1941	Poor	2,187	BTn (GPV)	Surplus	Wood truss
H2	1941	Poor	2,466	119 AD Bty	Btn	Steel truss
H3	1941	Good	4,652	210 Workshop 4 AD Bty	Same	Steel truss
H4	1952	Good	7,862	119 AD Bty B Supply	119 AD Bty	Concrete arch
H5	1962	Good	1,610	B Supply	Surplus	
H6	1962	Good	1,610	B Transport (hy eqpt/SNIC)	HAC	
1	1941	Poor	746	CE Workshops	Same	
4	1941	Poor	582	B Supply (Clothing store	Demolish	
7	1941	Fair	98	25 m outdoor range	Same	
9	1941	Poor	2,029	SQs (Men)	Same	
11	1941	Fair	37	POL storage	Demolish	
13	1941	Poor	1,271	Base HQ	Demolish	
16	1941	Poor	250	Social Centre	Demolish	
17	1941	Poor	2,029	SQs (Men)	Same	
18	1941	Poor	433	Accommodation	Demolish	
44	1952	Good	3,541	Combined Mess	Same	
45	1952	Fair	183	Guard House	Same	
46	1949	Fair	43	Sewage Lift Station	Same	MQ Area
47	1953	Excellent	4,369	Recreation Centre	Same	

(CHA-BI-T1)
(24 OCT 90)

TABLE 1

CFB CHATHAM BUILDING INVENTORY (Cont'd)

BLDG NO	CONST DATE	BLDG CONDITION	GROSS AREA (M^2)	PRESENT USE	FUTURE USE	REMARKS
48	?	Excellent	2,126	B Supply	Same	To receive extension
49	1952	Excellent	749	Fire Hall	Same	
50	1952	Excellent	1,619	Officers' Mess	Same	
51	1952	Fair	55	Storage	Same	Unheated
53	1952	Good	2,295	SQs (Officers)	Same	
54	1952	Good	2,295	SQs (Women & NCOs)	Same	Renovated in 1982
55	1952	Good	1,372	CE Adm & Shops	Same	
57	1955	Excellent	3,008	AD School	Same	
60	1954	Good	1,466	Telecom, BPSO & Base Trg Offices	New Detachment HQ	Adjacent to domestic and operational zones
61	1954	Good	1,415	B Photo/SIU NBC Offices	Surplus	
62	1961	Good	406	BOps	Surplus	
63	1953	Good	483	Protestant Chapel	Same	
64	1953	Good	530	RC Chapel	Same	
65	1952	Excellent	1,118	Heating Plant	Same	
66	1953	Good	2,370	BEME Garage	Same	
72	1952	Fair	2,295	SQs (Men)	Same	

TABLE 1

CFB CHATHAM BUILDING INVENTORY (Cont'd)

BLDG NO	CONST DATE	BLDG CONDITION	GROSS AREA (M^2)	PRESENT USE	FUTURE USE	REMARKS
73	1952	Fair	2,104	Medical Arts/ Chaplains Offices	Same	
74	1959	Good	246	Control Tower	MAC	MIP Ph I
75	1953	Good	247	119 AD Bty Storage	Auto Hobby Club	
77	1952	Excellent	101	Sewage Treatment Plant	Same	
83	1954	Good	189	Stand-by power	Surplus	MIP Phase I
84	1952	Fair	4,277	Elementary school	Community Centre	It has a gymnasium
85	1959	Fair	113	Remote transmitter	MAC	Isolated parcel of land south of Searle Rd
90	1940	Good	150	Water Pumphouse	Same	Use solely for fire emergencies
91	1980	Excellent	63	Water Pumphouse	Surplus	It has high-tech eqpt
93	1941	Fair	145	Scuba Diving Club	Surplus	
99	1959	Fair	28	Water Pumphouse	Same	MQ area
100	1962	Excellent	137	LOX Storage	Surplus	MIP Ph I
101	1961	Fair	24	APU Building	Surplus	MIP Ph I

(CHA-BI-T1.2)
(24 OCT 90)

TABLE 1

CFB CHATHAM BUILDING INVENTORY (Cont'd()

BLDG NO	CONST DATE	BLDG CONDITION	GROSS AREA (M^2)	PRESENT USE	FUTURE USE	REMARKS
102	1962	Good	1,003	Curling Rink	Same	
103	1964	Excellent	1,449	BEME Workshop	Surplus	
104	1963	Fair	480	B Transport Office	MAC	
105	1965	Fair	45	Guard House	Surplus	Quick Reaction Complex
106	1969	Good	223	RATCON	Surplus	MIP Phase I
107	1963	Good	40	TACAN	Surplus	MIP Phase I
108				Ceilometer	Surplus	
109				Transmitter	Surplus	
110	1962	Good	302	Empty garage Ammo Compound		Unheated
111	1962	Good	299	Workshop/ Office Ammo Compound		Heated
112	1964	Good	199	Offices Ammo Compound		
113	1964	Good	217	Storage	Same	
114	1964	Good	532	Ammo Workshop and office	Same	
115	1964	Good	346	Ammo Storage	Same	
116	1964	Good	297	Ammo Storage	Same	
117	1964	Good	281	Sand Storage	Same	
120	1961	Good	66	Skating Shelter	Same	

(CHA-BI-T1.3)
(24 OCT 90)

TABLE 1

CFB CHATHAM BUILDING INVENTORY (Cont'd)

BLDG NO	CONST DATE	BLDG CONDITION	GROSS AREA (M^2)	PRESENT USE	FUTURE USE	REMARKS
123	1982	Excellent	8	POL Office	Same	
124	1942	Poor	50	Supply Storage	Same	
126	1959	Fair	4	Hospital Storage	Demolish	
129	1960	Fair	90	Greenhouse	Same	
132	1957	Fair	6	POL Storage	Same	
133	1941	Poor	13	Transport Storage	Demolish	
134	1941	Poor	8	Runway Lighting Storage	Surplus	MIP Phase I
137	1957	Fair	4	POL Storage	Same	
138	1959	Fair	41	Airfield Lighting APU	Surplus	MIP Phase I
139	1960	Fair	20	Radar	Surplus	MIP Phase I
140	1964	Fair	120	Engine Test Cell	Surplus	MIP Phase I
141	1967	Fair	248	Canex Garage	Canex Warehouse	
142	1951	Fair	84	DCC Office	Same	
144	1965	Fair	3	Base Guard House	Same	Main entrance
145	1959	Fair	40	Alcoholics Anonymous	Trailer	
146	1966	Fair	84	Utilities Storage	Same	
147	1968	Good	1,804	High School	Same	

TABLE 1

CFB CHATHAM BUILDING INVENTORY (Cont'd)

BLDG NO	CONST DATE	BLDG CONDITION	GROSS AREA (M^2)	PRESENT USE	FUTURE USE	REMARKS
148	1969	Fair	94	CE Storage	Same	Unheated
149	1969	Fair	30	RATCON APU	Surplus	MIP Phase I
150	1971	Excellent	1,371	Canex Store	BSupply (Clothing)	NPF Building
151	1971	Excellent	800	Garage (empty)	BTn Hy Eqpt	
152	1972	Fair	7	POL Shed	Same	
153	1975	Fair	125	Laundry Building	Same	Mobile Trailer Park
154	1976	Fair	7	Bus Shelter	Same	
155	1945	Poor	11	CE Storage	Same	
156	1978	Good	567	Supply Storage	Same	
157	1958	Good	131	MQ Garage	Same	
158	1958	Good	131	MQ Garage	Same	
159	1958	Good	89	MQ Garage	Same	
160	1958	Good	177	MQ Garage	Same	
161	1981	Good	268	Empty (storage)	Tracadie	Unheated
162	1982	Good	18	POL Office	Same	
163				Storage	Surplus	
164	1982	Fair	11	ETC Aux	Surplus	
165	1987	Fair	68	Hy Eqpt Tlr	Tracadie	
166	1987	Good	68	RC Tlr	Same	Relocate to Tracadie
167	1989	Good	259	Engine Test Cell		

(CHA-BI-T1.5)
(24 OCT 90)

TABLE 1

CFB CHATHAM BUILDING INVENTORY (Cont'd)

BLDG NO	CONST DATE	BLDG CONDITION	GROSS AREA (M^2)	PRESENT USE	FUTURE USE	REMARKS
169	1987	Fair	6	Antenna Bldg	Surplus	
170	1988	Good	78	TAC & DOC Tlr	Tracadie	
173	1988	Good	68	CE Cont Tlr	Same	
174	1989	Fair	64	ALPC	MAC	
175	1989	Good	5605	AD Arty School	Same	
200	1971	Good	42	Ammo Storage	Same?	Unheated
201	1971	Good	42	Ammo Storage	Same?	Unheated
202	1971	Good	42	Ammo Storage	Same?	Unheated
203	1971	Good	42	Ammo Storage	Same?	Unheated
204	1971	Good	42	Ammo Storage	Same?	Heated
205	1971	Good	42	Ammo Storage	Same?	Heated
204a	1971	Good	9	Heating	Same?	
205a	1971	Good	9	Heating	Same?	

Source: 1901-1 (BComd), CFB Chatham Present and Future Building Use, 16 December 1982